Nursing home care in Taiwan : some factors influencing demand and supply.

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NURSING HOME CARE IN TAIWAN---SOME FACTORS INFLUENCING DEMAND AND SUPPLY

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ABSTRACT

Taiwan is facing a radical change in the composition of its population. It is expected that the population aged 65 and over will treble between 1994 and 2036. One result of this shift is that the growing number of old people, especially the very elderly, may need some form of long-term care.

The theoretical concept of this research comes mainly from the political economy of ageing and uses the theory of demand and supply as the basic structure of research framework. The aim is to examine factors that influence the demand and supply of nursing homes in Taiwan and to explore some factors that trigger entry into this form of care. The hypotheses are that:

- on the demand side elderly people living in nursing homes have a greater need for this kind of care than those living in the community and their characteristics (including dependency levels, socio-demographic factors etc.) are different.
- on the supply side the supply of nursing homes is significantly influenced by the long term care resources in the community and one of the major factors that influences the proprietors to invest in them is the National Health Insurance system.

This research, mainly quantitative about nursing home care in Taiwan, concerns both the risk of institutionalization and the decision-making process of elderly people and their families and the view of the proprietors of registered nursing homes. It is based on a survey of elderly people in the nursing homes and their families (230 interviews). A comparison with a national sample in their own homes is also made. In addition, a sample of 12 registered nursing homes was investigated and their proprietors were interviewed.

It was found that nursing home admission was associated with advanced age, gender, educational level and dependency level of elderly people. Most of elderly people in Taiwan are taken care of in their homes by their families but under certain circumstances, some of them found the nursing home entry was inevitable. The decision making process, mainly within a family context, was influenced by adult children of elderly people, their preferences and service availability.

This study has important implications for long term care in Taiwan. It is hoped that long-term care in Taiwan will be needs-led by the users-- elderly people and their families.

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Finally, I would like to dedicate this thesis to my dear father– this is the gift he had promised to give.

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The decline in fertility and mortality and the ageing of the baby boom generation in Taiwan are combining to reduce dramatically its population growth, and to increase the ageing of its future population. Taiwan is now a WHO defined ageing society (where these aged 65 and over are more than 7%) and it is expected that the population aged 65 and over will increase from 8.52% to 21.6% between 2000 and 2036 (Council for Economic Planning and Development, 1996). The population is shifting from a young to an old composition. As the picture of the demographic future in Taiwan has come into clear focus in recent years, it has stimulated anxiety about its long-term socio-economic implications. One of the major consequences of population ageing lies in its effect on health services. Older people use much more health care than younger people, so that the demand for medical care is expected to increase substantially and at a rapid pace.

The probability of disability and need for care increases with age and those frail elderly patients with chronic diseases often occupy acute hospital beds for long periods. There have been reports that many are inappropriately hospitalized. A hospital census of 48 general hospitals conducted in 1994 (Yen et al., 1996) revealed that 6.8% of the hospital beds in Taipei city (the Capital) were occupied long-term by non-acute patients. Among those patients, Yen et al. (1996) estimated that more than 60% of them were in need of skilled nursing care rather than acute medical care.

A 15-year long-term care project was launched in 1995 by the Department of Health (DOH) in Taiwan because of its critical needs. This "Long-Term Care: 15 Years Project" is aimed to develop a comprehensive long-term care system in Taiwan, including extended care beds in chronic hospitals, nursing homes, day care centres, home health care services and hospices. Meanwhile, it is hoped that this long-term

care system can link well with the acute care system as a comprehensive continuous care system in Taiwan. However, due to the needs of elderly people, a variety of unregistered care facilities, many more than in the public sectors, have already been provided (Wu and Chang, 1995). Not only are their standards not proved but also the quality of care is not assured (Dai et al., 1992). By October 1997, only twenty nursing homes (including three public and seventeen private sectors) had been registered by the Department of Health in Taiwan with a total capacity of approximately 700 patients. In view of this, one part of the policy of the 15-year long-term care project launched by the Taiwan government is to establish at least one nursing home in each county (public or private) and encourage the establishment of nursing homes by the private sector.

The problems associated with long-term care have profound implications for individuals, families, and society. Elderly and disabled people in all countries are both likely to experience losses of functional ability, physical mobility, mental faculties, and social roles. The future pattern of long term care in Taiwan is an important part of social policy and welfare for the increasing proportion of elderly people. A well-developed long-term care system in Taiwan will enhance the quality of life in old age. It would also help the total utilization and integration of the acute and long-term care systems. The purpose of this study is to focus specifically on the provision of nursing home care in Taiwan through a study of the factors that influence demand and supply. Set within this context, the nursing home profile in Taiwan are presented by examining the characteristics of nursing homes, their patients, proprietors and analyzing the family network in the decision-making process of entry to nursing homes for their older adults.

This chapter introduces background information about Taiwan and its current long-term care system. First, it starts with issues of definition and introduces the purpose of this research. Second, it describes the island of Taiwan and reviews trends of population ageing in Taiwan, its social-economic indices and the social welfare system. Third, it analyzes the demand for continuing care services from the demographic, health care and socio-economic standpoint. In addition, the current continuing care delivery system in Taiwan and its problems are introduced in order to present an overall picture of long-term care in Taiwan.

1.2 ISSUES OF DEFINITION

Estes (1993) showed that care for elderly people encompasses a range of services. These include both health and social care. The current service provision for elderly people mainly relies on a multitude of diverse funding mechanisms, both private and public. To a lesser extent, the system also relies on the provision of uncompensated care by what may be called the informal sphere: personal assistance from private hired-helper and unpaid care from families, relatives and friends.

1.2.1 What is long-term care?

Long-term care has been used in a broad sense to encompass various types of care and services provided on a long-term basis. The individuals receiving care may reside in their own homes, with relatives or friends, or in group facilities such as housing for elderly people, or they may reside in institutional facilities such as homes for the aged, residential homes and nursing homes.

Kane and Kane (1987) defined long-term care as "a set of health, personal care and social services delivered over a sustained period of time to persons who have lost or never acquired some degree of functional capacity" (pp. 4).

The American College of Physicians (1988) previously defined long-term care as "the medical and support services needed to attain an optimum level of physical, social and psychological functioning by persons who are frail and dependent due to chronic physical and mental impairments" (cited in Weiner, 1994, pp. 1527). These services can be provided in the home, in the community, in nursing homes, and in alternative residential settings.

Laing (1993), in his book '*Financing Long-Term Care*', describes long-term care as embracing "all forms of continuing personal or nursing care and associated domestic services for people who are unable to look after themselves without some degree of support, whether provided in their own homes, at a day centre, or in an NHS or care home setting". "It excludes 'acute' medical care, aimed at curing or alleviating particular medical conditions" (pp. 18).

In another definition from Liu (1994): "long-term care refers to health, social, and residential services provided to chronically disabled persons with functional or

cognitive impairments" (pp. 476). It "tends to be 'low tech' but very labor intensive" (pp. 476).

Spohn et al. (1986) reported that a long term care system is composed of health and social services designed to maintain chronically ill and/or functionally impaired persons at an optimal level of functioning. These services range from 'most' to 'least' restrictive based on whether they are provided in an institutional setting or in the client's home.

The Joseph Rowntree Foundation Inquiry, UK (1996) adapted the definition of Laing (1993). They also used the term 'continuing care' interchangeably with long-term care. They explained that 'continuing care' could also be for a relatively short period, like six months. However, the Department of Health, UK, uses this term to mean continuing NHS provision only (The Royal Commission Report, 1999). The Royal Commission Report (1999) has proposed that " 'long-term' should encompass dependency that is 'ongoing' and likely to be 'permanent' " (Vol. 1, pp. 3).

This research focuses on the new nursing home service which is administered by the Department of Health (DOH) in Taiwan. Because it comes under the DOH in Taiwan, discussion is focused on long-term care issues more related to the health care system rather than all social welfare issues for elderly people. Long-term care is defined here as health care and social services for elderly people who are functionally dependent for a relatively long period of time.

1.2.2 The definition of a nursing home

In a long-term care system, nursing homes are one of the main forms of institutional care. According to the House of Commons (1926), UK., a nursing home was defined as: (cited in Bartlett, 1993, pp.4)

"... any institution that ... must habitually cater for patients who, in some degree, are incapable of looking after themselves, and consequently require more or less constant attention, and from the nature of their complaints may be unable to leave the home."

Another definition under the Nursing Homes Registration Act 1927, UK. is that, a nursing home was defined as: (cited in Bartlett, 1993, pp.4)

"... any premises used or intended to be used for the reception of and the providing of nursing for persons suffering from any sickness, injury or infirmity, and includes a maternity home..."

The emphasis was on the maintenance of basic standards and homes had to be run by a 'fit' person in 'fit' premises with some qualified person on the staff (Bartlett, 1993).

The Royal Commission Report, UK (1999) has defined a nursing home as "an establishment which provides residential and nursing care for sick, disabled or elderly infirm people, including the elderly mentally ill. It may be run (rarely) by the NHS, or (usually) by the private or voluntary sector. Some nursing homes are dually registered as nursing and residential homes" (pp. xxiv).

According to Peace (1997), where the nursing homes and residential care homes are concerned, the distinction between nursing care and personal care has to be made. "The distinguishing criterion is the extent to which the occupants require the kind of attention which falls within the practice of the nursing or medical professions" (pp. 95). However, there is continuing ambiguity since elderly people's needs in later life are associated with long-standing or fluctuating health conditions.

In terms of the staff in nursing homes, in the UK, the Nursing Homes and Mental Nursing Homes Regulations (1984) require that they "provide adequate professional, technical, ancillary and other staff in relation to the size and type of establishment" (cited in Peace, 1997, pp. 95).

1.3 THE PURPOSE OF THIS RESEARCH

1.3.1 Aims and objectives

Aims

An investigation about the future pattern of long term care in Taiwan is important because of the increasing proportion of elderly people in Taiwan (see 1.4.2). This will help determine patterns about the balance of provision between institutional and community care. This study focuses specifically on the provision of nursing home care in Taiwan through a study of the factors that influence demand and supply. The aim is to explore some possible risk factors for elderly people at the point of nursing home admission. Set within this context, factors which relate to the risk of

institutionalization, the family network in decision-making process (demand) and the provision of nursing homes (supply) in Taiwan are examined and analyzed.

Objectives

A1. To understand the use of nursing homes by elderly people in Taiwan, the characteristics of elderly patients in nursing homes are investigated and compared with those of elderly people in the community.

A2. To analyze the reasons that influence the choice of nursing home care in a sample of nursing home patients, the decision-making process in the context of the family network is examined.

B1. To determine the factors which affect the provision of nursing homes in Taiwan, various issues from the government's policy towards long-term care are examined.

B2. To investigate the owners/proprietors' investment in nursing home services, their views are examined.

1.3.2 Why it is important

Long-term care policy in Taiwan currently seems one step behind the actual demand in the market. Hundreds of institutional care facilities, mainly unregistered due to low standard and low cost, have already appeared in the market. Frail elderly people who need institutional care are now living in different forms of unregulated facilities. These are strictly illegal and do not necessarily meet any standard (Dai et al., 1992; Wu and Chang, 1995; Lee et al., 1997). They usually charge less than registered homes. The unregistered residential homes will be closed by the government gradually from this year. No discussion has yet made about closing unregistered nursing homes. Although there are a variety of estimates of the numbers of elderly people who may need long-term care in Taiwan (DOH, 1996; Liu et al, 1994; Wu et al, 1996), the need for institutional care, especially nursing home care remains unknown. It is a complex issue. The need for nursing home care is a result of the interaction between various factors and a balance between demand and supply. Before arguing who really needs nursing home care and estimating how many nursing homes are needed in Taiwan, the current patterns of utilization and what factors that influence its demand (elderly

people choosing nursing home care) and supply are critical. This information should be extremely important for future policies.

The establishment of long-term care institutions costs money and reversing a policy takes time. Because the new nursing home system in Taiwan has just started, research is necessary. It is hoped that presenting a picture of nursing homes can help the policy makers to determine the future pattern of long term care. The expectation is: the long-term care system in Taiwan will be not only provider-oriented and cost-effective but also needs-led by the users---our elderly people.

1.4 BACKGROUND TO THE STUDY

1.4.1 Taiwan, an island country

Taiwan, Republic of China (R. O. C.), is located in the south-eastern sea of China, on approximately 121 E and 24 N, with the Pacific Ocean on the east, the Taiwan Strait on the west facing Fukien Province, the Bashi Channel on the south, the East China Sea on the north (Fig. 1-1*). The Taiwan Area is comprised of some 86 islands: the Taiwan Island proper, the Penghu Islands, the Green Island, the Orchid Island and the Tiao-yu-tai islands, with a total land area of 36,000 square kilometers (14,000 square miles) (Data source: Ministry of Interior, Taiwan, R.O.C.).

The Taiwan Island is 394 kilometers (245 miles) in length, and 144 kilometers (90 miles) in width at its widest points. The total coast line of the Island and other islands is 1,240 kilometers (770 miles). Penghu County on the west of the Taiwan Island is a group of 64 islands. The nearest point to the Taiwan Island is about 24 nautical miles. Kinmen County, with five townships, has a total land area of 153.06 square kilometers, of which 69.26 square kilometers are arable. Matsu area is remote in the open sea. The ten major islands total in land area is only 28.8 square kilometers. Nan-kan island is the largest with a land area of 10.442 square kilometers. The Matsu islands are a general term. For geographical reason, they come under Lienchiang County of Fukien Province (Data source: Ministry of Interior, Taiwan, R.O.C.).

1.4.2 The Population in Taiwan

1) Population Size and Growth Rate

According to the household registration, the total population at the end of 1995 in Taiwan Area (Including Kinmen and Matsu Area) was 21,304,181 persons, an increase of 10.3% over the 19, 313,825 persons in 1985. There were about 3 million people in 1905 in Taiwan Area. Thirty-six years later in 1941, the population doubled to 6 millions; it doubled again to 12 millions in only 23 years in 1964. At the end of 1995, there was in Taiwan Area a total of 21,304,181 persons (17,245,283 persons or 80.95% of the total population in the Province of Taiwan; 2,632,863 persons or 12.36% in Taipei City; and 1,426,035 persons or 6.69% in Kaohsiung City). This was an increase of 178,389 persons over 1994, at a rate of 8.4 per 1000. Of the total population, 10,962,590 were male and 10,341,591 female.

2) Birth, Death and Natural Increase Rates

The crude birth rate of Taiwan Area in 1947 was 38.30 per 1000. It went up to the highest of 49.97 in 1951. It then gradually declined to 20.56 per 1000 in 1983 and fell to only 15.50 per 1000 in 1995. The total number of births in 1995 was 328,904. The crude death rate was as high as 18.15 per 1000 in 1947. It had declined sharply in the past years to only 5.60 in 1995. The total number of deaths in 1995 was 118,737. The total natural increase of population in 1995 was 210,167 at an increase rate of 9.91 per 1000. It declined 8.13 thousand-points over the 18.04 per 1000 rate of 1985. At the end of 1995, there was a total of 47,394 persons residing in Kinmen. There were 611 births in 1995, giving a crude birth rate of 13.01 per 1000. The crude death rate was 7.28 per 1000. At the end of 1956, the population in Kinmen was 45,234 persons. The population declined in the years as many left the islands for employment as there was no industry there. With the ending of the curfew[1] and the opening of the county to tourism, the population is increasing. In Matsu, there were 5,856 persons at the end of 1995, primarily of local residents and the armed forces. Villages scatter around Wuo-kou. 58.6% of the population are in Nan-Kan, 20.9% in Peikan, 9.8% in Chu-Kuang, and 10.7% in Tung-yin (Ministry of Interior, 1996).

3) The Age Composition

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[1] Kinmen is the most important military base of Taiwan, R.O.C.. People could only get into this island with military pass and civilians' move was restricted to a certain area before the end of curfew.

In the Taiwan Area in 1995, young people under the age of 15 years occupied 23.76% of the total population; productive age population 15-64 years occupied 68.61%; and older people above 65 years occupied 7.63%; thus giving a dependency ratio of 45.75# per 100 working age population between 15 and 64 years (Table 1-1; Fig. 1-2*) (See also Table 1-2*, Social Indicators in Taiwan Area of the Republic of China, 1995). *[Please note that all tables are in the text except those marked with an asterisk (*)]*. At the end of June, 1997, the elderly population aged 65 and over was up to approximately 7.98% (i.e., 1.72 millions elderly people) of the total population in Taiwan (Ministry of Interior, 1997) and is projected to increase to 21.6% by the year 2036 (Council for Economic Planning and Development, Executive Yuan, R.O.C., 1993). The age group 80 and over, like the other countries, will be the group which increases most rapidly. In 1960, there were only 24,234 elderly people aged 80 and over, it was 213,000 in 1994 and it is expected to be 1,336,000 in 2036, 6.27 times more than that in 1994 (see also Fig. 1-3). Comparing with other countries in the world, for example, in the UK, the elderly people aged 65 and over was 15.7% of total population in 1995 and it is estimated to increase to 22.9% in 2031 and 24.6% in 2041. There will be nearly 3 times as many people aged 85 and over in 2050 as there are today. According to the Royal commission Report (1999), the population aged 80 and over is expected to multiply in most northern European countries over the period 1960-2040, for example, rising about 400% in Switzerland, and over 600% in Finland. This figure is expected to be near 250% in the UK. Even in the non-European industrialized countries, it is also projected at a minimum of 500% in New Zealand, over 800% in the United States, and over 1300% in Japan (Vol. 1). All the developed countries are experiencing a process of demographic ageing and this is especially the case for the population aged 80 and over. This appears likely to continue.

In Taiwan, fertility levels have also decreased dramatically as they have in western countries. The total fertility rate dropped from 4.8 children per women in 1966 to 1.8 in 1995. As a result of this, the ratio of adult children to older parents is currently quite high in Taiwan, but in the future the average number of adult children available to elderly people will diminish substantially. This tendency is also shown clearly from the Index of Ageing (i.e. number of people aged 65 and over at the end of year divided by the number of people aged 0-14 at the same time). This index increased from 7.83% in 1971 to 32.11% in 1995 (Table 1-1) and it is estimated that it will increase to

126.32% in 2036 (Committee of Economic Development, Executive Yuan, R.O.C., 1997). In Taiwan, numbers of elderly people aged 65 and over increased 1.5% each year on average between 1905 to 1990. It is estimated that this rate will be 5.5% each year on average from 1990 to 2036. Thus, the rapid ageing of population is evident in Taiwan in the next forty years. Mortality levels dropped throughout the period as witnessed by the 23-year improvement in expectation of life (Hermalin et al., 1992). In Taiwan, the current life expectancy was 71.9 years for men and 77.9 years for women in 1996 (Ministry of Interior, 1996).

dependency ratio = (23.76%+7.63%)/ 68.61%= 45.75%

4) Population Distribution and Density

At the end of 1995, the population density in Taiwan Area was 590 persons per square kilometer of land area, an increase of 63 persons over the 527 persons in 1984. On average, there were 3.67 persons in one household in 1995, a decline of 0.81 persons over 4.48 persons in 1984. Taipei City has the highest density of 9,687 persons per square kilometer of land area; Kaohsiung City the next, with a density of 9,284 persons per square kilometer of land area. The average density in the province of Taiwan is 485 persons, though on the east coast, densities are 72 and 78 persons per square kilometer of land area in Taitung and Hualien counties respectively. The Kinmen area has a density 310 persons per square kilometer of land area. The density in the Matsu area is 203 persons.

5) Gender, Marital Status and Living arrangements

In 1995 in Taiwan Area, of the 16,281,348 persons above the age of 15 years, 51.33% were male and 48.67% female. Of them, 34.34% were unmarried, 57.87% married, and 7.79% either widowed or divorced. At the end of 1995, among the total population in Taiwan, the sex ratio of male to female was 106% (106:100). According to the statistical data, about 98.6% of senior citizens aged 65 and over dwell in mainstream housing. Among these, 64.3% live with their children (including next door) or take turns to live with different children, 20.6% only with their spouses, 12.3% by themselves and 1.41% live with relatives or friends. Another 1% elderly people live in senior citizens care or medical care institutions. There were approximately 210,000 elderly people who lived alone in Taiwan-Fuchien Area, 1.2% of the total population in 1996. Among them, approximately 15,000 elderly people

live in care institutions which is 0.9% of the total elderly population (MOI: Social Status Report of Senior Citizens, 1996).

6) Educational Status

For persons above the age of six in 1956, only 1.7% had higher education, and the literacy rate was 62.9%. At the end of 1995 in the Taiwan Area, 76.23% of the total population (or 16,281,348 persons) were above the age of 15 years. Of them, 16.34% had college and above education, 35.13% senior high and senior vocational school education, 17.75% junior high school education, 23.46% primary school education, 1.06% literate and 6.26% illiterate.

Table 1-1. Age-specific Distribution of Population, Dependency Ratio, Index of Ageing, Taiwan, R.O.C.

	Age-specific Distribution			Dependency Ratio	Index of Ageing
End of Year	0-14 Years (1)	15-64 Years (2)	65 Years and Over (3)	[(1)+(3)]/(2)	(3)/(1)
			%		
1905	34.00	63.30	2.70	58	7.96
1920	37.16	60.06	2.78	67	7.48
1950	41.26	56.24	2.50	78	6.05
1960	44.38	53.19	2.43	88	5.74
1966	43.96	53.33	2.71	88	6.16
1971	38.71	58.26	3.03	73	7.83
1976	34.67	61.70	3.63	63	10.47
1981	31.60	63.99	4.41	56	13.94
1982	31.22	64.24	4.54	56	14.55
1983	30.79	64.54	4.67	55	15.18
1984	30.17	64.98	4.85	54	16.06
1985	29.58	65.37	5.05	53	17.08
1986	28.99	65.73	5.28	52	18.21
1987	28.37	66.09	5.54	51	19.51
1988	27.94	66.32	5.74	51	20.54
1989	27.49	66.56	5.95	50	21.66
1990	27.07	66.72	6.21	50	22.95
1991	26.33	67.15	6.52	49	24.77
1992	25.76	67.44	6.80	48	26.40
1993	25.14	67.77	7.09	48	28.22
1994	24.40	68.23	7.37	47	30.20
1995	23.76	68.61	7.63	46	32.11
2000	21.59	69.89	8.52	43	39.44
2010	20.35	69.80	9.85	43	48.43
2020	18.54	67.64	13.82	48	74.57
2030	17.05	63.37	19.60	58	114.81
2036	17.14	61.21	21.65	63	126.32

Source: (1) Taiwan-Fukien Demographic Fact Book, R.O.C.", by the Ministry of Interior (cited in "Social Indicators", 1995, pp. 53.); (2) Population Projection by Council for Economic Planning and Development, Executive Yuan, 1996.

1.4.3 Social and economic Indices

Taiwan's gross domestic product grew by a respectable 6.51% in 1994. Of the US$ 244.2 billion GDP, agriculture accounted for 3.6%, while industry accounted for 37.3%. Since the return of Taiwan to the Republic of China after the Second World War, under the joint efforts of the government and the people, the economy of Taiwan Area has improved rapidly and the quality of life has also been greatly upgraded. At current prices, the per capita national income in 1967 was US$ 267, it was US$ 13,198 in 1997 (see Fig. 1-4*: Per Capita GNP 1967-1998).

In terms of the social security program[2], it has extended the coverage of the Farmer Health Insurance system. In 1995, all payments related to medical costs were shifted from this program to the National Health Insurance Scheme[3] (NHI) when the National Health Insurance Law was implemented. Therefore, in 1956, only 3.98% of the total population were covered by the social security program; in 1993, 55.99% were covered. After 1996, more than 90% of the total population were covered because of the implementation of NHI in Taiwan (Department of Health , Executive Yuan, R.O.C.). Table 1-2*. Ranking of R.O.C. in the World Measured by Major Socio-economic Indicators summarized the socio and economic status of Taiwan among the world (Source: Appendix II: International comparison, Social Indicators in

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[2] Social security program in Taiwan refers to:

1. People who have work are automatically covered by social security program. When they retire, they can obtain a lump sum money (retirement benefits) from Government Employees' Insurance or Labour Insurance which depends on the years they have worked apart from their occupational pension. In addition, for farmers, there are also Farmers' Old Age Allowances.
2. People with low income or defined as poverty by the Department of Social Affairs, Ministry of Interior are covered by this program and can get a supplement pension monthly.
3. Farmer health Insurance: This insurance was promulgated on July, 1989 covering all farmers aged 15 and over engaging in agricultural jobs. Farmers covered by this insurance program are entitled to maternity, sickness, injury, disability and funeral allowance payments.
4. National Health Insurance system (NHI): This insurance was promulgated on March, 1995 covering all the medical costs of Taiwanese who live in Taiwan more than six months.

[3] National Health Insurance (NHI) is a health insurance scheme launched by Taiwan government in March, 1995. The Central Bureau of NHI is an independent agent which is run under the supervision of the Department of Health. The launch of NHI aimed to cover all the health expense of the population in Taiwan. People in Taiwan under the umbrella of NHI have to pay the premium every month. When medical care is needed, people can go to acute hospitals free of charge except for a registration fee and some certain amount of out-of-pocket money. This is small and is designed to control demand in which the medical resources can be more properly used.
Till now, the NHI covers the range of acute hospital care (outpatients and inpatients up to 180 days); the home care program (i.e., all the nursing care is free for the patients under the home care program except the nurses' transportation fee which has to be paid by the patients) and the same items of nursing treatment which are covered in home care program and provided in nursing homes are also covered.

Taiwan Area of the Republic of China, 1995). This showed that among all these economic indicators, Taiwan was the highest ranked country in some of them. For example, Taiwan was the highest ranked country on average annual growth rate of the central government consumption and the private consumption during 1980-1992. It also had the highest annual growth rate of imports during 1980-1991 and had the highest average annual growth rate of service production in 1980-1991 and the lowest infant mortality rate in 1991 and 1992.

In terms of the income of elderly people, in 1993, 58.2% of elderly people had an income of under NT. 10,000 per month; 23.5% of elderly people had an income of between NT. 10,000-20,000 and only 18.2% of elderly people had a monthly income of more than NT. 30,000 (Wu and Chang, 1997). Comparing with the per capita GNP in the same year, about 80% of the elderly people had an income below this level.

1.4.4 Social Welfare

The vast majority of the ROC people in the Taiwan area now enjoy a higher standard of living than ever before. This includes equal access to education, jobs, housing, medical care, travel, and political participation. There are profound social and political changes accompanying the astounding economic success of recent years that has seen Taiwan's transformation over the past four decades from a traditional agricultural economy into a modern industrial one. However, this restructuring of society has also given rise to new social ills, which has made life more hazardous in many ways, especially for disadvantaged groups.

Taiwan has a long tradition of venerating elderly people. Extended families were once the most fundamental source of welfare services in Chinese society. Traditionally, all the members of a farming family lived together in one household, caring for each other's needs. Three generations cohabiting was common, and five generations together was seen as ideal. Each family member had certain responsibilities according to his or her age and gender. Young men worked in the field, their wives cooked, managed the home, and took care of the family elders. Grandparents provided wisdom, guidance, and childcare. Children did light chores. When all members fulfilled their duties, everyone's needs were met, and the family was said to be in harmony.

The classical conception of family-based support has been challenged by the emergence of a modern, post-agricultural economy in Taiwan. By mid-1995, the percentage of people working on farms in Taiwan had dropped to 10.7% of the working population. Many young people have left the farming households in which they grew up and established nuclear families in urban areas (50% of the population lived in metropolitan areas and their suburbs in 1995). It is now common for both husband and wife to work full-time outside the home and send their children to schools which cater for children from the age of two. Grandparents are visited during major holidays. The metamorphosis of extended farming families into nuclear urban families has resulted in rising numbers of children, women, senior citizens who require assistance from non-family sources. Coinciding with this increased need for outside assistance are new phenomena: heightened demand for government services and the proliferation of private organizations that provide welfare services.

The ROC central government spent US$ 10.11 billion or 25.6% of the government's total expenditure in fiscal year 1995 on what it broadly defines as "social services" (this budget heading includes social welfare expenses 13.7%, community development and environmental protection 2.4%, and pensions 9.4%). Although it spends such a large percentage of its budget on social services, the ROC government is not attempting to be the sole source of welfare services in Taiwan. Instead, the government sees its role as a facilitator and coordinator of welfare activities in local communities (Government Information Office, 1996).

Social welfare in Taiwan is mainly governed by the Ministry of Interior (MOI). The Ministry of Interior's Department of Social Affairs (DSA) formulates welfare policies and drafts related legislation in Taiwan. These include Children's Welfare, Services for Juveniles, Women's Welfare, Welfare of Elderly and Disabled people. The DSA then briefs local welfare offices on the latest policies. These offices survey the actual demand for specific services in the local community. Community demand is assessed on a locality basis and local welfare officials transmit the professional's feedback to policy makers at the highest level of government.

People in Taiwan still feel a strong moral obligation to care for elderly people. Elderly people rely on their families in old age. It is reported that more than 60% of elderly people aged 65 and over are still personally cared for by their children in their own homes (Government Information Office, 1996). However, this percentage is

falling. The ROC government's welfare policy regarding elderly people reflects the customary pattern of in-home service. To help senior citizen, the Senior Citizen Welfare Law, Taiwan was promulgated in 1980. This law reflects this moral compunction by mandating a broad range of services for anyone aged 65 and over, from subsidizing transportation and entertainment to free medical care and housing. For example, the Ministry of Interior's revision (in 1997) to the Senior Citizen Welfare Law includes a special exemption on real estate taxes for households with senior citizens. In addition, children's filial obligation to their parents has also been written into the law. To increase welfare services for senior citizens, the Department of Social Affairs under the Taipei City (the Capital) Government had planned to purchase or build apartment buildings exclusively for senior citizens. Rental fees for these apartments are very low. Citizens are required to be aged 65 and over, healthy, and able to handle daily chores in order to qualify for residency. Senior citizens with low incomes have also qualified for free inpatient and outpatient medical assistance under the National Health Insurance scheme since March 1, 1995. The government also provides free in-home service for senior citizens with low income. Nurses made 161,496 such house calls in 1994 and more than 230,700 free physical checkups were conducted in the same year. In 1997, this in-home service for elderly people with low income has increased to 193,221 persons/cases (MOI, 1998). In addition, 29 rural convalescent centres and 26 homes for retired servicemen have brought serenity and security to many elderly people who do not have any family in Taiwan (Government Information Office, 1996). Day care centres and senior-citizen recreation centres run with the subsidy of local authorities conduct regular physical checkups and provide breakfast, lunch, entertainment and activity such as folk dancing, Tai-Chi chuan, Chinese folk music, opera, chess and handicrafts during working hours on weekdays and Saturdays. These centres are important for elderly people while younger family members go out to work.

In May 1988, the Taipei City Government inaugurated Taiwan area's first day care centre for people aged 65 and over. Similar institutions are now operating throughout the Taiwan area. It is reported that elderly people have increasingly paid visits to day care centres from 119,912 persons/cases in 1994 to 256,132 in 1997 (MOI, 1998). The number of the senior-citizen recreation centres and organizations such as Evergreen Academies, Longevity and Pine Clubs have increased to more than

460. It was reported that the Senior Clubs had served more than 3,500 citizens and more than 70,000 people enrolled in classes provided by the 219 evergreen academies in 1997 (MOI, 1997).

Some other welfare services are also relevant to elderly people such as those who are disabled or with low incomes. To assist disabled citizens, the government promulgated the "Disabled Citizen Welfare Law" in 1980 and 1985. This law was further amended and renamed the "Physically and Mentally Disabled Citizens Protection Law" promulgated by the President in 1997. Physically and emotionally challenged people are given handbooks about welfare services. In 1996, only 62,000 elderly people aged 65 and over had applied for these handbooks. It was estimated that there were still about 57,000 elderly people who were qualified but not applied.

Low income citizens are also granted regular subsidies, emergency relief and disaster relief to help them overcome hardships. To guaranty subsistence for senior citizens, the ROC government has launched a program to pay living allowances for low-income senior citizens since 1993. Low income families[4], which are defined as those having a total monthly income of less than $154 to $220 (depending on different local authorities), are provided by the social welfare system with cash, goods, and a variety of services (including medical and health care). The standards for low income households are based on the "monthly minimum expenses" defined by MOI and are adjusted annually. In 1994, 114,788 people (47,625 households) with limited income composed only about 0.5% of the total population in Taiwan. Members of low income households receive free medical care and the government payment of insurance premiums, and are eligible for monthly living allowance subsidies. If the elderly people aged 65 and over whose family income does not exceed 1.5 times the monthly minimum expenses they are qualified to receive a monthly subsidy of US$ 230. Elderly people whose family incomes are more than 1.5 but less than two times the minimum expenses are eligible for a monthly relief subsidy of US$ 115. More than 90,000 elderly people in Taiwan have benefited from this policy to date. One example of this subsidy structure at work can be seen in Taipei City, the capital of Taiwan, R.O.C.. The Department of Social Affairs under the Taipei City Government provides

[4] "Family" is defined here as a 'household' which refers to a single person or a group of people who have the address as their only or main residence and who either share one meal a day or share the living accommodation (McCrossan, L., 1985). This UK definition is the same as that in Taiwan.

monthly living allowances to elderly people aged 65 and over who are not residents of any institutions, e.g. convalescent centres or residential homes run by VACRS or MOI (they can be admitted free of charge in this case). Temporary living assistance is also provided to elderly people over 60 years of age who do not qualify for a monthly living allowance or low income household subsidy if they are abandoned by their family. These grants can amount to US$ 190 per month but last for not more than one year. Elderly citizens whose family income is less than US$ 550, when faced with emergencies or calamities, are also eligible for the same amount of assistance (US$ 190 per month) for not more than one year. The ROC government spent US$ 56.64 millions on living allowance for low income families in 1994 and US$ 63.5 millions in 1997 (Government Information Office, 1996; MOI, 1998).

Under the supervision of the MOI, community development is also an important program in promoting social welfare. The ROC government is increasingly investing financial resources every year in order to take care of disadvantaged groups of people (including children, senior citizens, and disabled citizens) in the community. The Implementation Rules for Community Development were promulgated in December, 1995. This program integrates the resources of the social welfare system and the community development field. Its purpose is to create a community welfare service network and to carry the social welfare services at local levels. The government is educating the public in the concept that 'those who give assistance have better luck than those who receive it and those who offer are happier than those who take' (MOI, 1998). Volunteer service programs are encouraged by the MOI together with encouraging children (sons or daughters) to live with (or near) their parents by tax exemption. The MOI aims to establish a society of peace and harmony and in the hope that volunteer services could be effected in an organized manner.

1.4.5 The government authorities related to continuing care

With regard to the continuing care delivery system in Taiwan, this is currently governed by two separate systems. In brief, the Ministry of Interior (MOI) is responsible for the social welfare of the country. Welfare for elderly people is defined by the Ministry of Interior as providing basic subsistence aid and care to senior citizens who have insufficient income. Living alone is one factor taken into account. In

the social welfare of elderly people, the main services governed by MOI include domestic services (for elderly people who live alone), day care centres (for health independent elderly), recreation centres and residential care settings. The Department of Health (DOH) is the highest *health authority* in charge of the medical care and health care services and this includes policy making, planning, strategy performance, funding subsidization, supervision and inspection. The main long-term care services launched by DOH are extended care beds in (non-acute) hospitals, nursing homes, home (nursing) care programs and day care centres under the DOH supervision. The ideology is that due to the ageing population and the prevalence of chronic diseases among elderly people, the government should provide a comprehensive continuing care service for sick, infirm elderly people after acute care. Both of them (MOI and DOH) are under the hierarchy of the Executive Yuan, Republic of China. As we can see, some functions of them are duplicated at the moment due to the high prevalence of health problems among elderly people and it is not easy to be clear-cut. For example, under the supervision of MOI, some residential homes also include nursing care in their homes (see 1.4.6.2). For the welfare of elderly people in Taiwan, it is necessary for these two organizations to cooperate as one is responsible for health and the other social services. This position is, of course, similar to other countries such as the United Kingdom (UK).

1.4.6 The current system of continuing care delivery in Taiwan

1.4.6.1 Demand

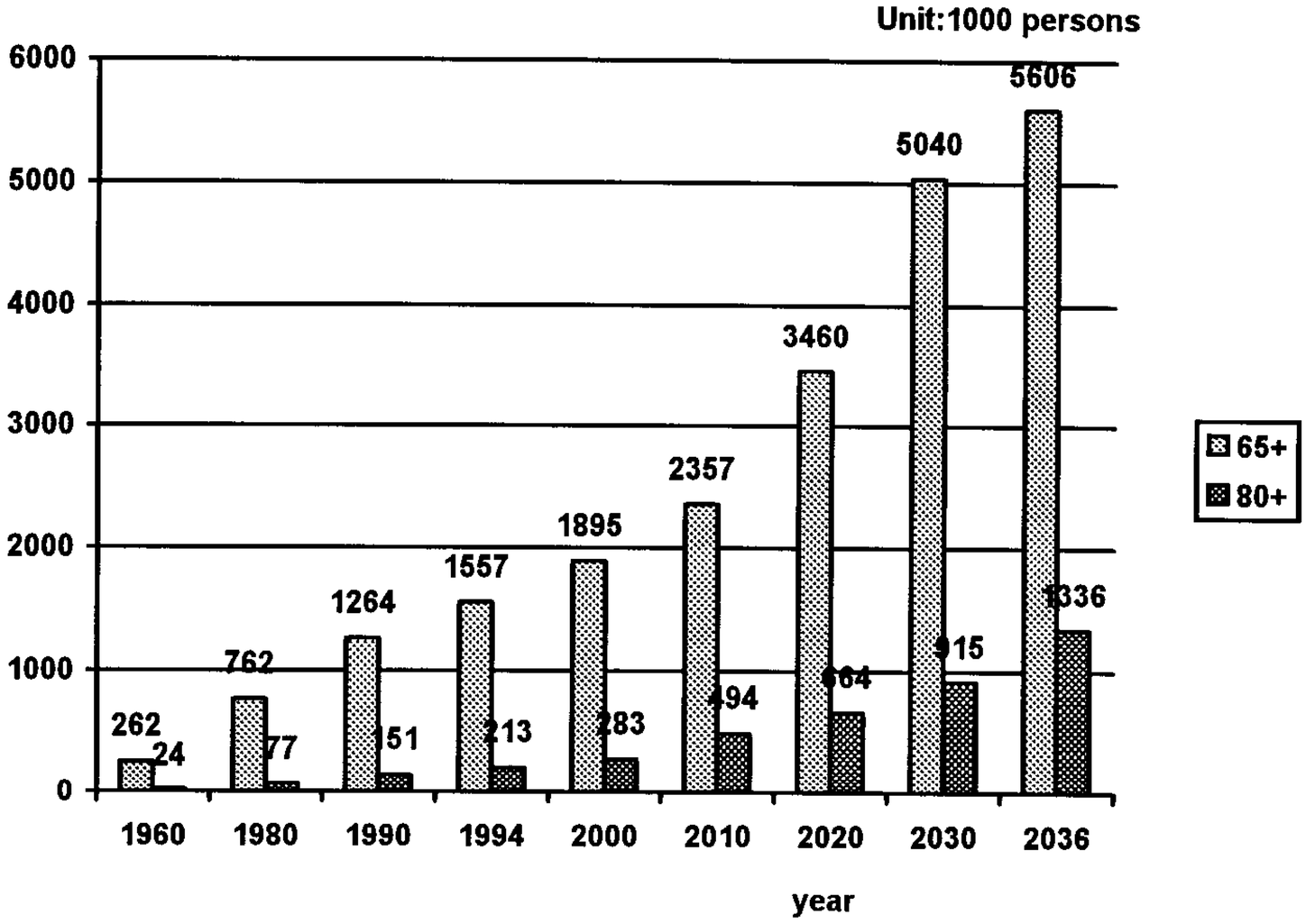
1. Rapid growth of the number of elderly people in Taiwan

Taiwan had nearly completed its demographic transition from high to low birth and death rates in the 1980s (Depart of Health, ROC, 1993). Numbers of elderly people, that is, those aged 65 and over, have been growing continuously and rapidly as mentioned in 1.4.2. In 1990, 1,264 million people aged 65 and over inhabited Taiwan, forming 6.21% of the population. At the end of 1995, this percentage had increased to 7.63%, including 1,626 million elderly people aged 65 and over. Of this population group, 5.31% were aged 65-74, 1.98% aged 75-84 and 0.34% aged 85 and over (Table 1-3*). Taiwan is now an WHO defined ageing society (where these

aged 65 and over are more than 7%) and it is expected that the 65+ years population will increase from 8.52% to 21.6% between 2000 and 2036 (Council for Economic Planning and Development, 1996). The population is shifting from a young to an old composition. One result of this shift is that the growing number of old people, especially the very elderly, will increase the need for long-term care services.

The Index of Ageing (number of people aged 65+ divided by the number of people aged 0-14) also increased (shown in Table 1-1). The figure was 30.20% in 1994 and it is expected to increase much more quickly after 2010 and will be 126.3% in 2036. The age group 80 and over will be the group which increases most rapidly. There were 213,000 elderly people aged 80 and over and it is expected that there will be 1,336,000 in 2036, 6.27 times more than that in 1994 (Fig. 1-3).

Fig. 1-3. Numbers of elderly people aged 65+ and 80+ in Taiwan area: 1960-2036



Source: Taiwan-Fukien Demographic Fact Book, R.O.C. by Ministry of Interior; Population Projection by Council for Economic Planning and Development, Executive Yuan,1996(cited in Wu and Chang, Health care for the elderly in Taiwan: a fact book, 1997, pp.5)

Table 1-4* shows the changes of the sex ratio among old men and women. In terms of the sex ratio (males per 100 females) among elderly people aged 65 and over, it was nearly 70% (male: female = 70:100) in the 1950s. This rate is up to 120% now.

This increase is because after World War II the R.O.C. administration came to Taiwan and most of these were male soldiers who remained are now around over the age of 65. In Taiwan, on average, the number of females exceeds the numbers of males due to the longer life expectancy of females. In 1995, the life expectancy in Taiwan is 72 years among males and 78.0 among females, a 6 years' gap. It is expected that the sex ratio will go down in the future. It is estimated to be 91.43% in 2000, under 100%, and this figure will keep going down to 85% (back to normal range) in 2036. With respect to the elderly group aged 80 and over, the sex ratio is always under 100% on average due to the life expectancy of women being longer than that in men. In 1994, there were 120 elder men to 100 elder women, while in the group of aged 80 and over, there were only 84 elder men to 100 elder women (Wu and Chang, 1997).

Furthermore, it was estimated that 6.6% of the community elder adults aged 65 and over are in need of self-care assistance by measuring disability as having any one limitation in ADLs over more than 3 months and as needing human assistance (Wu, et al. 1994). The prevalence of disability rises with age. According to the estimation made by the Council for Economic Planning and Development (1996), the number of people in need of self-care assistance was around 90,000 in 1992; it is projected to grow to 200,000 in 2010, and 500,000 in 2036. This means that the need for long-term care in our society is growing very fast. Similarly, the growing number of dependent people will become a major challenge to the health care system in Taiwan.

2. The increasing number of elderly people who live alone due to changes in family structure

Economic development and industrialization have created abundant job opportunities and have attracted more and more young people into the job market. To cope with such social changes, the family structure has transformed itself from the traditional big-size family into the modern nuclear family. This change of family structure has resulted in the transformation of the living patterns of the elderly people in Taiwan.

A statistical survey (Directorate General of Budget, Accounting and Statistics, Executive Yuan, 1992) revealed that the percentage of the elderly people living with children declined from 70.24% in 1986 to 62.93% in 1991. Meanwhile the percentage of elderly people living with either spouses or in facilities (i.e., residential homes under supervision of MOI, homes for the aged run by VACRS* (Vocational Assistance

Commission for Retired Servicemen) and a variety of unregistered care facilities) increased respectively, from 14.1% and 0.8% in 1986 to 18.7% and 1.2% in 1991. This survey found that the demand for home nursing, home support services and institutional care is likely to keep increasing, especially for elderly people who are disabled. (* VACRS is defined in 1.4.6.2 supply side analysis, section 2.)

3. The increase in female participation in the work force

According to the estimates of the Social Status Report for Senior Citizens, Taiwan area, R.O.C. (1993), the 4.63% (55 thousands) of elderly people could not take care of themselves and needed special care from others. Among them, 78.78% were taken care of by family carers which is the "mainstream" care model in Taiwan; only 11.75% of them were taken care by other alternatives (i.e., institutional care or home helpers). A major finding of a study showed that females are the major contributors of care for the elderly families. Among all carers 72% are women (Wu S. L. et al., 1991).

However, economic development, changes in the family structure and the upgrade of female educational levels all stimulated the increase of females in the work force. According to the data compiled by Directorate General of Budget, Accounting and Statistics, Executive Yuan in 1995, the female work force increased from 39.16% in 1978 to 44.29% in 1993. The increase is likely to contribute an insufficient supply of family carers for elderly people in Taiwan society.

4. Rapid growth of chronic illness and accident rates

Changes in socio-economic structure and lifestyle, as well as improvements in health and medical care, have modified the causes of death in Taiwan. In Taiwan, major causes of death in 1952 were acute infectious diseases such as gastritis, duodenitis, colitis, pneumonia and tuberculosis. By 1998 they had been replaced by chronic diseases such as malignancy, cerebral vascular diseases, heart diseases, accidents, and diabetes mellitus (Department of Health, Taiwan, 1998). This implies a future new task of providing long-term care for elderly people with chronic diseases.

1.4.6.2 <u>Supply</u>

Regarding the supply of services for elderly people, the changes in the demographic profile of the elderly population will affect their need for formal, long

term care services (or significant levels of in-home services provided by professionals). Obviously, life span and the proportion who have health limitations will be important because the need for long term care, in general, increases with age and disabling health conditions. Their living arrangements will also be important. If more elderly people live alone in the future, the demand for formal in-home services will increase (holding constant health and other characteristics) because fewer elderly people will be living with family carers who often provide significant levels of informal long term care services.

The continuing care services operated in Taiwan are currently administered and managed by four different types of authorities or organizations as follows:

1. Medical and nursing care programs administered by the Department of Health

The Department of Health (DOH) in Taiwan is the government's highest authority in charge of the administration of medical and health care. In terms of long-term care system, the Department of Health is designing the continuing care programs for chronically ill patients discharged to communities, targeted to shorten their hospital stays and to utilize the limited medical care resources more effectively for patients with acute needs. In 1986, a pilot project set up nursing homes on a trial basis, with a total of 232 beds by the end of 1993 (DOH, ROC, 1996). By the end of 1997, registered nursing homes had increased to 28 homes, comprising 1,120 beds. In addition, several community care and home care programs were launched. From 1992-93, 30 home health care and four day care programs had been subsidized (DOH, ROC, 1996). Hospital-based day care services are currently available at several hospitals. According to the statistical data, the number of home care organizations had increased from 32 in 1993 to 148 in 1997 and nearly 5,000 people were covered in the program. In addition, day care centers in Taiwan cared for around 310,000 persons-cases in 1998 (including all the day care services provided from the DOH and the MOI), an increase of more than one time than that (120,000 persons-cases) in 1994 (DOH, 1998).

With respect to institutional care, the strategy was adopted of enlarging the numbers of extended care beds to meet the needs of patients with chronic illness. By the end of 1992, 5,806 extended care beds were available. Among them, 3,883 beds (66.9%) are under the supervision of the Vocational Assistance Commission for

Retired Servicemen (VACRS). Medical care institutions at all levels have been supported in order to improve their facilities for rehabilitation and care of chronic illness patients.

It can be seen that except for the extended care beds in non-acute hospitals, home (nursing) care, nursing homes and day care centers are the three main forms of long-term care which are under the DOH supervision.

2. Medical and nursing care programs administered by the Vocational Assistance Commission for Retired Servicemen (VACRS)

The VACRS medical and nursing care system plays an important role in Taiwan. It is an agent authorized by Executive Yuan, R.O.C. and aimed to take care of the living standards and welfare issues of the retired servicemen who were government soldiers from mainland China after World War II. These retired servicemen, so-called "Veterans" in Taiwan, are typically aged, single, with few relatives, living alone with inferior economic status, chronic illnesses and a need for long-term medical care. As of January 1994 the number of veterans aged 60 and over was more than 70% of all veterans. By May 1993, there were three Veterans General Hospitals with 4,883 hospital beds and eleven Veterans hospitals with 11,120 hospital beds providing medical services to veterans (DOH, 1996).

3. Intermediate care and daily living programs administered by Ministry of Interior (MOI)

Before the 15 year long-term care launched by the DOH, social services for elderly people were mainly provided by the MOI. Their works include community services (ranging from community learning centres, in-home care services, senior citizen community clubs to day care services) and institutional care settings. There were 49 institutions under MOI in 1993 which provide intermediate and daily living care programs for elderly people. Nine of them provide intermediate care to 1,336 people and forty of them are board and care facilities accommodating 9,605 people. Five of the latter can expand their services to cover intermediate care for a projected 640 people (MOI, 1993). At the end of 1996, the total number of institutions under the supervision of MOI has increased to 64 and accommodated 6,669 people in the public sector and 8,576 in the private sector. Meanwhile, these institutions had also served 256,132 people for day living care in 1997 (MOI, 1998).

4. Daily living care programs provided by the unregistered private sector

Hundreds of unregistered private homes, which were difficult to classify them as nursing homes or residential homes (except from their 'names'), exist in the market. A national survey conducted by Wu and Chang (1995) among 12 counties in Taiwan reported that there were at least 182 unregistered nursing homes in these counties. About one quarter of these homes had the size of 30 beds and over and their average occupancy rate was around 65%. Another survey conducted by Lee et al. (1997) among 51 care facilities in middle area of Taiwan reported that 92% of them were unregistered. Their occupancy rates were also around 64% on average. The number of unregistered homes is believed to be underestimated. These private homes displayed considerable divergence in quality of care.

Despite the four types of care mentioned above, the majority of elderly people were still taken care of by their families. According to the SSRSC (1996), apart from those (10%) disabled elderly people in institutions, 77% of the disabled elderly people in Taiwan lived in their own homes and were taken care of by family members. 8% were taken care of by the hired-helpers in elderly people's own (or their children's) homes. Another 3% were taken care of by relatives or friends, while nearly 2% of the disabled elderly people in the community were in their own homes and had no one to take care of them. One piece of research focusing on carers showed that 78% of the disabled elderly in the community were taken cared of by family members (Hu et al., 1995). Although family members took the major responsibility of care, it was regarded as traditional. Research on informal carers has been rare until recently (Hu, et al., 1995, 1996; Wu, S. L. et al., 1991, 1992; Huang, et al., 1997; Shyu, et al., 1996). It was found, in general, the family carers were mainly female (more than 60%) and spouses, daughter-in-laws and daughters. Carers on average were in their 50s and offered more than 16 hours' care per week (Huang et al., 1997). There was still no nationwide investigation about the number of informal carers in Taiwan. However, all relevant research showed that carers experienced a variety of difficulties in their caregiving task ranging from non-medical tasks, interpersonal problems (Hu et al., 1995) as well as dealing with incontinence and activities of daily living (Shyu et al., 1996).

1.4.7 Nursing homes in Taiwan

Nursing homes in Taiwan are new and the idea comes from the USA and Western countries. In the past, health care services for patients have taken place in hospitals. Partly because of an ageing population in Taiwan, which was 8.2% by the end of 1998, the DOH of Taiwan government formally announced a 15-year project for long term care services after the launch of the National Health Insurance Scheme in May, 1995. This project includes the development of chronic hospitals, nursing homes, day centers, hospices, community nursing and home care services ...etc. as mentioned above. These formed the web of long-term care in Taiwan.

In common with most of the long-term care services, nursing homes are not yet covered by the National Health Insurance Scheme launched in May, 1995 with some exceptions (see next page). However, because of the increasing population of elderly people and their critical need for long term care, the Department of Health is actively planning for the long-term care system to care for discharged or chronically ill patients in the community. This is in order to shorten the length of hospital stay and to utilize the limited medical care resources more effectively for the care of patients in acute need. Beginning in 1991, following the second phase plan of the National Medical Care Network and the Health and Medical Care Plan, rehabilitation care, and long-term care programs have been implemented. In 1994, the Department organized a Long-Term Care Planning Committee to plan, in collaboration with the Ministry of Interior and other agencies concerned, the mid- and long-term development plans for long-term care in Taiwan.

The Nurse Law was promulgated by the President of the Republic on 17 May 1991. To meet the care needs of elderly chronic patients after hospital discharge plan, provision concerning the establishment and management of nursing care institutions was made (Chapter 3 of the Nurse Law). After August 1993, qualified nursing personnel were permitted to independently manage nursing homes and home care organizations. However, the home care services are limited to nursing procedures such as changing N-G tubes and Foley catheters and these services are covered by National Health Insurance. Standards in nursing care institutions were announced. Nursing care institutions (including nursing home, home care organization and maternity care facility defined by the DOH) could now be established and brought

under regular supervision according to regulations. The quality of care for elderly people was expected to improve.

Beginning in 1991, the Cardinal Tien Hospital of Taipei County, the Saint-Cross Nursing Home of Taitung County and the Fu-an Nursing Home of Yunlin County were asked to set up nursing homes on a pilot basis. These institutions can provide around 200 beds. In March 1994, some hospital-based nursing homes such as the Cardinal Tien Hospital of Taipei County and the Wei-Kung Hospital of Miaoli County, and free-standing nursing homes such as the Nursing Home of the Chiang-Chin Nursing Foundation were legally registered for operation. In 1996, 13 registered nursing homes had been opened in Taiwan which provided around 634 beds. In 1998, the number of registered nursing homes had increased to 31 which provided 1,276 beds (Department of Health Executive Yuan, R.O.C., 1998) (Appendix A). Certain nursing procedures in nursing homes are the same as in home nursing care, for example, colostomy irrigation, urinal (indwelling) catheterlization, tracheotomy care and change tracheotomy set ...etc.. These procedures could also get reimbursement from National Health Insurance Scheme since 1996 (Department of Health Executive Yuan, R.O.C., 1996). They are the "exceptions" mentioned above which can be covered by the National Health Insurance Scheme toward nursing home care. This amount of reimbursement is about NT.2,000-3,000 per patient per month (The Central Bureau of National Health Insurance, 1998). Comparing with the average charge of NT.30,000-50,000 per patient per month in the nursing home, it does not make much difference for private payers.

As mentioned above, apart from the long-term care system governed by the Department of Health, Executive Yuan, R.O.C., residential care facilities run by MOI are the other functionally similar institutions in Taiwan.

Residential homes in Taiwan were originally set up for people who were poor or who had no families to take care of them. After more than 40 years' evolution, these homes now mainly provide two kinds of care, including nursing and caring. Nursing is for those people who are ill and have no one to take care of them; caring is for those who can take care of themselves but cannot live independently in community because of poverty (defined as above). Those who are poor and eligible for a residential home can be admitted free of charge. Meanwhile, residential homes now also accept people

who need help and are willing to live in residential homes and pay for themselves. That is, residential homes also accept private residents.

The number of registered residential homes has grown to around 80 in 1997 and some of their functions are the same as the new nursing homes due to the blurring of classifications at this stage. How the Department of Health (DOH) and Ministry of Interior (MOI) divide their responsibilities and collaborate successfully will be critical for the future pattern of long-term care system in Taiwan.

1.5 RESEARCH QUESTIONS AND HYPOTHESES

In order to explore the factors influencing the demand and supply of the new nursing home industry in Taiwan , the profiles of the nursing homes, their patients and the proprietors of nursing homes and the related decision-making process of nursing home placement have been examined by addressing the following research questions:

1.5.1 Research questions

Demand

1. Who makes up the population of registered nursing homes in Taiwan? Are there any differences in the characteristics of elderly people in nursing homes and those in the community?
2. What were the major determinants that affect patients' and/or their carers' decisions in utilizing nursing home care?

(1) Who were the influential persons involved in the decision-making process of nursing home entry for frail elderly people in Taiwan?

(2) What care was previously received (if any) including informal as well as formal networks?

(3) What was the event which triggered entry to the nursing home?

(4) What were the reasons for families' placing their frail elderly relatives in nursing homes?

(5) Were viable alternatives available?

(6) What understanding did elderly people have about nursing home care?

(7) Were elderly people influential in the decision-making process and able to exercise choice?

3. What was the carer's role in the decision-making process? Was this a main factor influencing the placement of frail elderly people in Taiwan?

Supply

4. What were the factors which influenced nursing home proprietors to invest in and supply a nursing home service in Taiwan?
5. What were the factors which determined nursing home charges?
6. What was the impact of National Health Insurance on long-term care of Taiwan?
7. Bringing demand and supply together, were these factors important in explaining the utilization of nursing home care in Taiwan?

1.5.2 Hypotheses

- On the factors that influence demand, the research hypothesis is that elderly people living in nursing homes have a greater need for this kind of care than those living in the community and their characteristics (including dependency levels, socio-demographic factors...etc.) are different.
- On the factors that influence supply, the research hypothesis is that the supply and utilization of nursing homes in Taiwan are significantly influenced by the long term care resources in the community (other alternatives to the health delivery system) and one of the major factor that influences the owners/proprietors to invest in nursing homes in Taiwan is the National Health Insurance System.

1.6 OUTLINE OF THE REMAINING CHAPTERS

Chapter 2 reviews the demand and supply of long-term care and the possible factors which influence them in general from the literature. The factors influencing demand and supply in different countries are presented in order to examine all the possible factors and compensate for the lack of information in Taiwan.

Chapter 3 lays out the research design that guides the study. In order to explore the possible factors that influence the demand and supply of nursing home care and the interaction within, this approach is from two perspectives. One is to present the

profile of nursing homes which includes the characteristics of the nursing homes, their patients and the proprietors and a comparison of the patients' profile with elderly people in the community by using a community data set[5] (The Social Status Report of Senior Citizens, 1996). The other perspective is from the carers/key families' view, to examine the families' decision-making process of nursing home entry for their frail elderly relatives. In this chapter, a variety of important factors which relate to the socio-behaviour of elderly people and their families in choosing institutional care in the relevant literature are reviewed. Particular attention is directed toward elderly people and their carers' decision-making process in utilizing the new nursing home services and the proprietors' view toward nursing home care in Taiwan. The core concept and dimensions of the approaches are presented.

Chapter 4 begins with the study design and description of the sample. This is followed by descriptions of the data sources, survey procedures and methodology which includes sampling, questionnaire design, data collection method and the measures used in the study and the pilot study.

Chapter 5 presents the results of the supply side, including information about the registered nursing homes and their proprietors. The proprietors' view about nursing home industry is explored. In addition, the government interventions including government policy and grants, government supervision and reimbursement policy toward long-term care are also examined.

Chapter 6 presents the results of the high risk profiles of the nursing home patients in Taiwan. It includes the statistical analysis of elderly patients in the nursing home and the elderly people in the community and also the multivariate logistic regression analysis to compare them in order to test each individual hypothesis on the demand side and whether the study has successfully answered the research questions are discussed.

Chapter 7 presents the journey into nursing home care. It includes the situation prior to admission, the perceptions toward nursing home entry in the decision-making process, through interviews with the elderly patients in the nursing home and their

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The Social Status Report of Senior Citizens (SSRSC), Taiwan Area, Republic of China, is a community data set which is a national survey held every two years by the cooperation of Ministry of Interior and Department of Health. This data set including the survey of the elderly people in Taiwan is used as a comparative data base in this study. There were 21,550 households included in the SSRSC, 1996 and comprised approximately 60,000 persons aged from 25 and over.

families. 'Was nursing home care inevitable? Were there any other alternatives?'. Factors are also examined by using multivariate analysis.

Finally, chapter 8 summarizes the findings and presents several important implications from this study that are useful for the nursing home industry, including consumers, nursing home proprietors, policy makers and administrators in the field of long-term care. Future prospects and suggestions for future research are also presented.

[Please note that tables and figures are either in the chapter (e.g., Table 1-1; Fig. 4-1) or at the back of the chapter (e.g., Table 1-2; Fig. 4-2*)]*

Table 1-2. Ranking of Taiwan, R.O.C. in the World Measured by Major Socio-Economic Indicators

Item	Unit	Period	R.O.C.		Highest Ranked Country	
			Value	Ranking	Value	Country
Health						
Life Expectancy at Birth						
Male	Years	1991	72	20	76	Japan
		1992	72	21	76	Japan
		1993	72	26	76	Japan
Female	Years	1991	77	25	82	Japan
		1992	77	26	82	Japan, Swizerland
		1993	77	27	83	Japan
Infant Mortality Rate (under 1 year old)	0/00	1991	5	1	5	R.O.C., Japen
		1992	5	2	5	Japan, R.O.C.
		1993	5	2	4	Japan
Population per physician	Persons	1990	913	44	170	Georgia
		1992	831	--	--	--
		89-94	797	34	193	Italy
Basic Economic Indicators						
GNP Per Capita (Amount)	US$	1991	8,982	23	33,610	Switzerland
		1992	10,470	24	36,080	Switzerland
		1993	10,852	25	35,760	Switzerland
Avg.Ann. Rate of Inflation	%	80-91	2.4	10	-3.1	Oman
		80-92	2.4	11	-2.5	Oman
		80-93	2.5	8	-2.3	Oman
Avg. Ann. Growth Rate of Production						
GDP	%	80-91	8.4	3	9.8	Botswana
		80-92	8.3	3	10.1	Botswana
		80-93	8.2	3	9.6	Botswana
Agriculture	%	80-91	1.7	32	14	Saudi Arabia
		80-92	1.7	28	14	Saudi Arabia
		80-93	1.5	31	9.7	United Arab Emirates
Industry	%	80-91	7.6	7	12.1	Korea, Rep.
		80-92	7.3	8	11.6	Korea, Rep.
		80-93	7.0	6	12.1	Korea, Rep.
Manufacturing	%	80-91	7.9	7	18.3	Oman
		80-92	7.3	8	18.3	Oman
		80-93	7.0	10	17.2	Oman
Services	%	80-91	10.6	1	10.6	R.O.C.
		80-92	10.4	2	11.7	Botswana
		80-93	10.3	2	11.6	Botswana
Avg. Ann. Growth Rate of Consumption and Investment						
General Government Consumption	%	80-91	7.3	3	12.5	Botswana
		80-92	7.4	1	7.4	R.O.C.
		80-93	7.2	2	9.9	Bulgaria
Private Consumption	%	80-91	9.0	1	9.0	R.O.C.
		80-92	9.1	1	9.1	R.O.C.
		80-93	9.1	1	9.1	R.O.C.

Item	Unit	Period	R.O.C.		Highest Ranked Country	
			Value	Ranking	Value	Country
Gross	%	80-91	7.2	4	13.0	Korea, Rep.
Domestic		80-92	7.9	5	12.7	Korea, Rep.
Investment		80-93	8.3	5	11.8	Korea, Rep.
Growth of Merchandise Trade						
Merchandise Trade						
Exports	Million US$	1991	76,178	10	401,848	Germany
		1992	81,470	10	429,754	Germany
		1993	85,091	11	464,773	U.S.A.
Imports	Million US$	1991	62,860	15	506,242	U.S.A.
		1992	72,007	14	551,591	U.S.A.
		1993	77,061	14	603,438	U.S.A.
Avg. Ann. Growth Rate						
Exports	%	80-91	11.0	8	20.6	Syrian Arab Rep.
		80-92	11.0	9	19.4	Syrian Arab Rep.
		80-93	10.0	8	15.8	Hong Kong
Imports	%	80-91	11.4	1	11.4	R.O.C.
		80-92	10.6	6	12.6	Hong Kong
		80-93	13.2	2	13.8	Thailand

Source: Directorate-General of Budget, Accounting and Statistics, Executive Yuan, R.O.C.(1995), *Social Indicators in Taiwan Area of the Republic of China*, pp. 347-351.

Table 1-3. The population at the end of 1995 in Taiwan, R.O.C.

	Numbers of persons	%
Total population	21,304	100.00
age:		
0-54	18,158	85.23
55-64	1,520	7.14
65-74	1,131	5.31
75-84	422	1.98
85 and over	73	0.34
55 and over	3,146	14.77
65 and over	1,626	7.63

Unit: 1000 persons

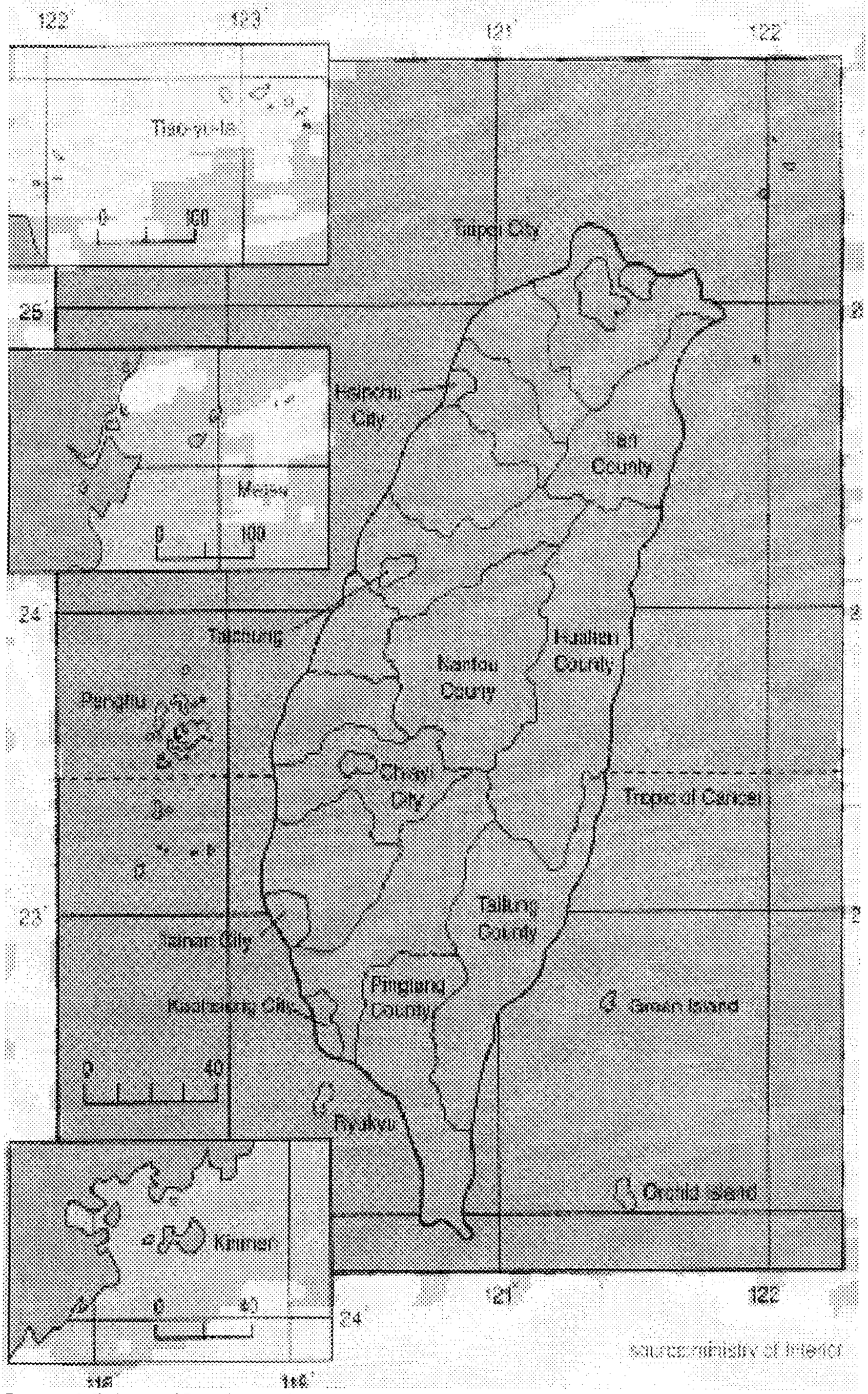
Source: Statistic monthly report, Ministry of Interior (March, 1996).
(cited in Wu and Chang (1997), *Health care for the elderly in Taiwan: a fact book*, pp.3)

Table 1-4. The changes of the sex ratio among older women and men in Taiwan

Years	65 years and over			80 years and over		
	Men	Women	Sex ratio (%)	Men	Women	Sex ratio (%)
1905	28,393	53,886	52.69	1,444	4,061	35.56
1915	33,500	63,274	52.94	2,025	5,979	33.87
1920	35,297	66,355	53.19	2,150	6,057	35.50
1930	38,336	71,479	53.63	2,268	6,958	32.60
1950	75,056	111,364	67.24	32,074*	56,136*	57.14*
1960	109,024	153,033	71.24	7,082	17,152	41.29
1970	187,078	229,089	81.66	13,472	28,655	47.01
1980	367,783	375,220	98.02	28,740	47,946	59.94
1990	656,072	574,648	114.17	64,463	86,991	74.10
1994	**851,691**	**705,367**	**120.74**	**97,505**	**115,933**	**84.10**
2000	996,844	897,782	111.03	134,424	148,846	90.31
2010	1,125,573	1,231,067	91.43	240,508	253,418	94.91
2020	1,607,301	1,852,465	86.77	279,171	384,702	72.57
2030	2,328,647	2,711,501	85.88	371,549	543,594	68.35
2036	2,576,992	3,029,137	85.07	542,603	793,948	68.34

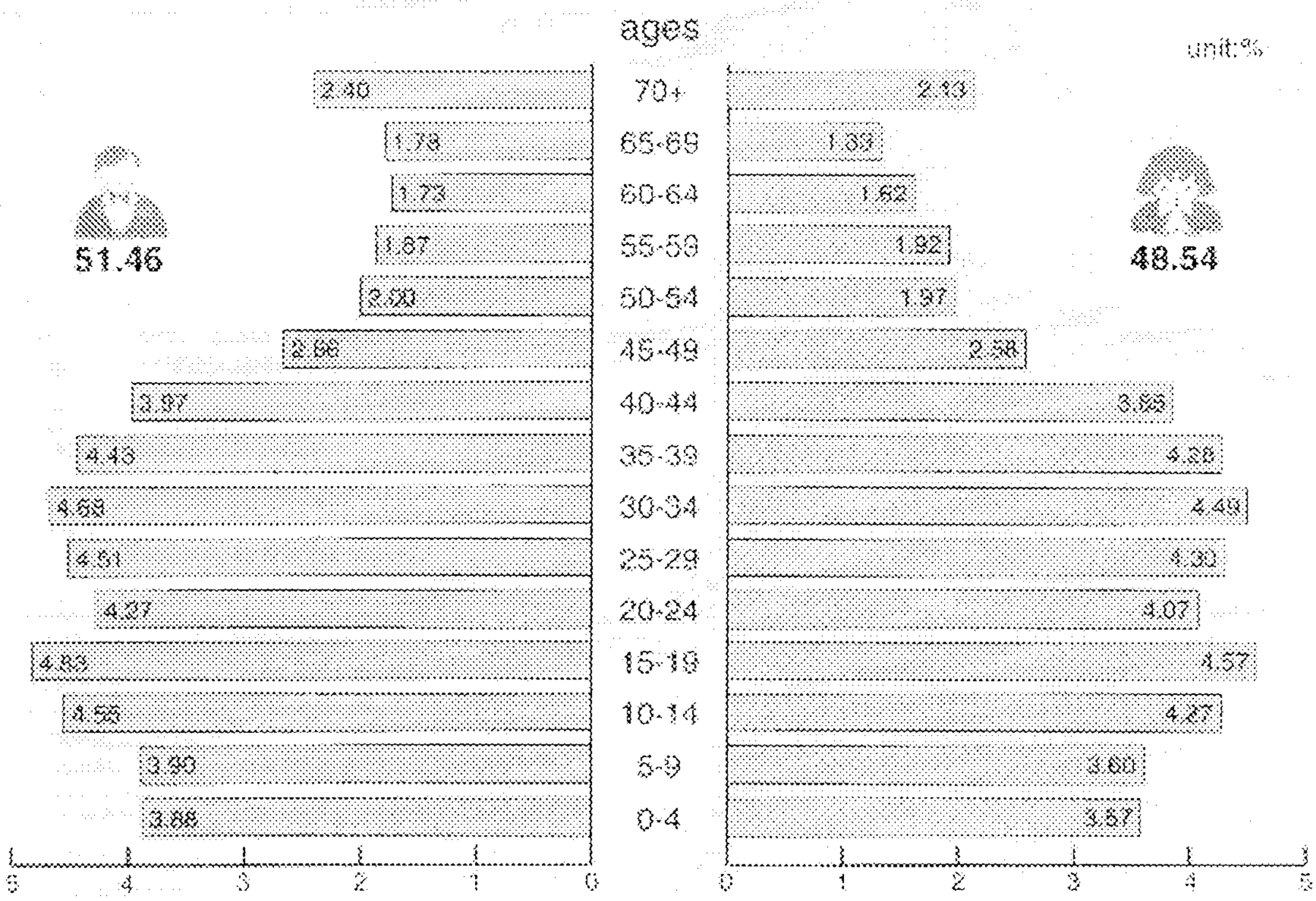
Ps. 1) * data for aged 70 and over only; 2) sex ratio= [male/female]* 100
Source: (1) *Taiwan-Fukien Demographic Fact Book, R.O.C.* (Ministry of Interior, 1995; (2) Population Projection by Council for Economic Planning Development, Executive Yuan, 1996.
(cited in Wu and Chang (1997), *Health care for the elderly in Taiwan: a fact book*, pp. 8)

Fig. 1-1 Map of Taiwan Area*, ROC



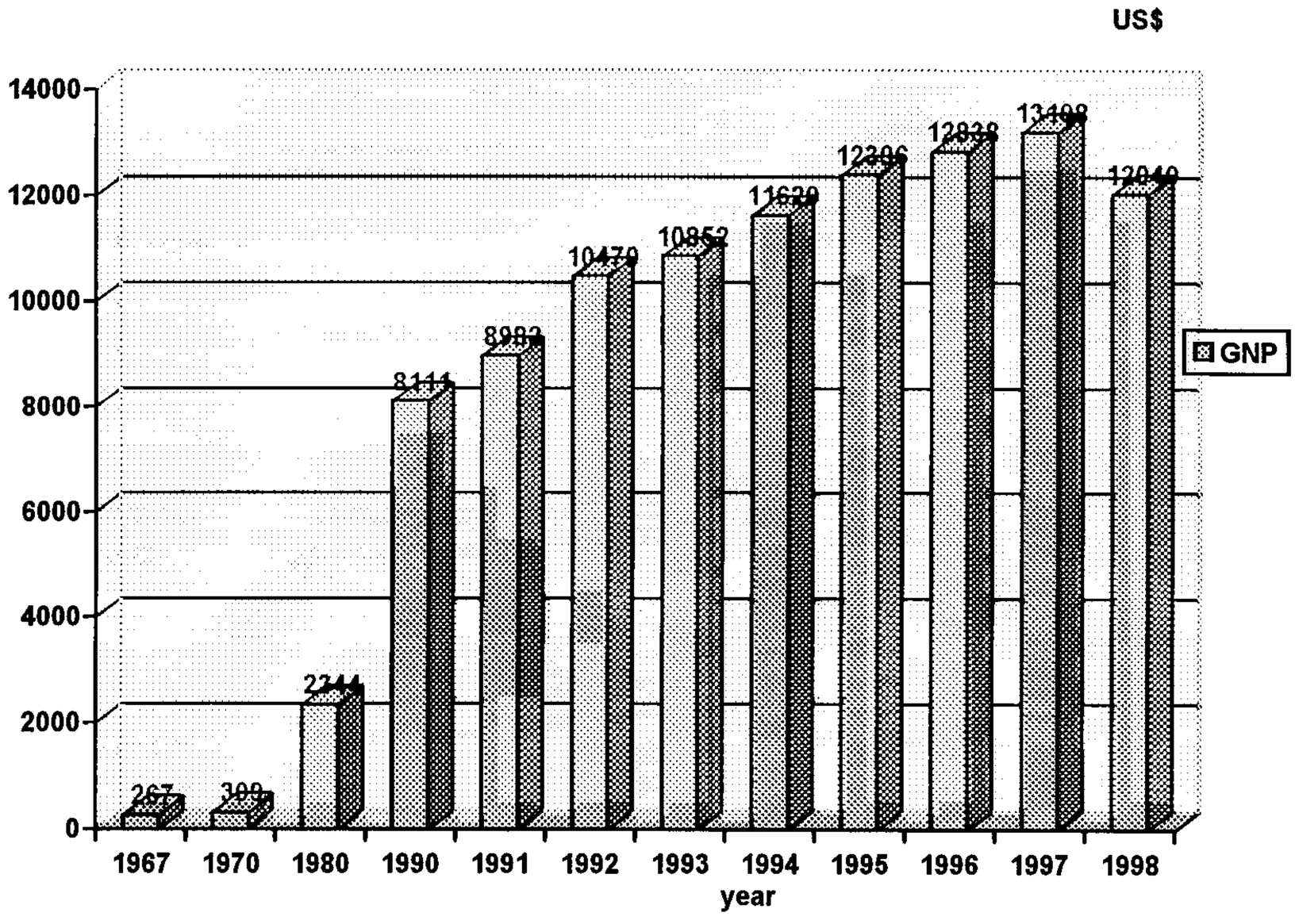
Source: Ministry of Interior, Taiwan-Fuchien Demographic Fact Book, 1998

Fig. 1-3 Age Composition of Population, Taiwan Area*, 1995



Source: Ministry of Interior, Taiwan-Fuchien Demographic Fact Book, 1998

Fig. 1-4. Per Capita GNP (Gross National Product) 1967-1998, Taiwan, R.O.C.



Source: Directorate-General of Budget, Accounting and Statistics, Executive Yuan, R.O.C., 1999.

CHAPTER 2

FACTORS INFLUENCING THE DEMAND AND SUPPLY OF LONG-TERM CARE---LITERATURE REVIEW OF RESEARCH AND POLICY DEVELOPMENTS

The factors that influence the demand and supply of long-term care play very important roles in the pattern of long-term care provision. This chapter explores these factors from a review of the literature. This includes information about the United States, the UK (and European countries) and Taiwan. The literature covers factors that influence the demand and supply of long-term care, especially the role of nursing homes. Referring to the relevant literature of countries such as the USA and Western Europe that have far more experience in long-term care is believed to be beneficial in developing a suitable long-term care system for Taiwan.

2.1 THE CONCEPT OF DEMAND AND SUPPLY

2.1.1 What is need

Maslow distinguished five levels of human need---physiological, safety, belonging and love, esteem, self-actualization. Moving from philosophy towards practice, it is quite clear that there are important differences that undermine the consensual image of needs. In the debate surrounding the definition of need various perspectives arise: sociologists tend to use Bradshaw's (1972) taxonomy which makes distinctions between *normative need* as externally defined by 'experts'; *felt need* which is a perceived need or want; *expressed need* which is visible as demand and *comparative need*, making comparisons between populations in receipt and not in receipt of particular services. Recently, health services managers have found Stevens & Gabbay's (1991) approach appealing as it defines need more strictly as the "ability to benefit from health care", which depends both on morbidity and on the effectiveness of care. The Royal Commission Report (1999) has adapted the

definition of "the need for nursing in nursing homes based on the concept of the stability or instability of the person's health status" (i.e., likelihood of future problems) developed by the Royal College of Nursing (Vol. 1, pp. 3).

2.1.2 The definitions of demand and supply

Demand is different from the concept of 'need'. According to the latest Royal Commission Report (1999), 'demand' is used by economists as "a want backed by a willingness to sacrifice resources for it" (The Royal Commission Report, 1999, Vol. 1, pp. 3). In the context of the National Health Service Review, UK., demand is the health care that people 'ask for' (Stevens & Gabbay, 1991). According to Vickery and Lynch (1995), demand for health, in general, is composed of four components: morbidity, perceived need, patient preference, and non-health motives. Evers has observed that, "It is a long and complicated process to translate objective needs perceived into articulated demands." (Evers, 1992, pp. 2). Demand is a technical word that does not simply mean the desire to posses. It involves the willingness and ability to buy. "Effective demand is therefore the desire to posses something, backed up by the ability to pay for it" (Harrison, B., 1990).

According to Begg et al. in the context of economics, "Demand is the quantity of a good buyers wish to purchase at each conceivable price" and "Supply is the quantities of a good sellers wish to sell at each conceivable price" (Begg, Fisher and Dornbusch, 1994). In a market demand (the behaviour of buyers) and supply (the behaviour of sellers) interact (this is called market forces) and this establishes the market price for any product. Perhaps a more comprehensive definition for demand is: "individual demand is the quantity of a commodity that an individual is willing and able to buy during a given time period..... the market demand for a product is the sum of the demands of the individual consumers in the relevant market" (Hardwick et al., 1994). In analyzing the potential demand for long term care, the discussion will encompass not only on factors which have the potential to affect objective *need* for care in the future (e.g. how many dependent elderly people there are likely to be) but also what elderly people are likely to *expect* and *want* (Salvage, A.,1995). Patients' expectations would also be the best predictor of satisfaction (Hsieh and Kagle, 1991).

2.1.3 Summary of factors that influence the demand/supply for care

There are numerous possible factors which may influence demand and supply of care. Referring to previous research (Jette et al., 1992; Warburton, 1994; Salvage, 1995; Peace et al., 1997), factors which will influence demand for care include: demographic factors (e.g. fertility and mortality rates), disability and health, social factors (e.g. elderly people's preferences for care, changes in the pattern of family structures and responsibility…etc.), financial factors including their incomes and financial positions, service availability, changing reimbursement policy and political power. In terms of the supply for care, the influential factors will be numbers and varieties of long-term care resources available, alternative care sources, public policies/ideologies and economic factors...etc.

2.2 FACTORS THAT INFLUENCE THE DEMAND FOR LONG-TERM CARE

2.2.1 Changing demographic risk factors

A variety of changes in the demographic profile of the elderly population will affect their need for formal, long term care services in nursing homes (or significant levels of in-home services provided by professionals). Obviously, life span and the proportion who have health limitations will be important because the need for long term care, in general, increases with age and disabling health conditions. Their living arrangements will also be important. If more elderly people live alone in the future, the demand for formal in-home services will increase (holding constant health and other characteristics) because fewer elderly people will be living with family carers providing significant levels of informal long term care services.

Several key demographic factors that will affect the need for long term care services in the future are as follows:

1. *Age composition/ proportion of very old people*

Population ageing is a worldwide phenomenon. Of particular concern is the increasing proportion of very elderly people because people aged 85 and over are most likely to make demands on care services (Baldock, 1997).

Demographers have shown that the population is ageing. The current balance of the population is as follows. In 1991, 13.6% of the population of the European Union was aged 65 or more, while 18.2% of the population was aged less than 15 years (Eurostat, 1993a). People aged 80 and over in European Union represent 3.5% of the total European Union population and the population aged 60 and over represent 15% (Eurostat, 1993a).

In the United Kingdom, the over-65s account for 16 percent of the total population in 1995 and will comprise around 23 percent in 2031 (Central Statistical Office, 1996). Grundy (1992) has noted that the characteristics of the elderly population in England and Wales are undergoing a change in that the very old population (85 and over) is increasing while numbers of 65-74 year olds are slightly decreasing. The segment of the UK population aged 85 and over is projected to rise from 1.1 million in 1998 (1.9% of the population) to 3 million (5% of the population) at its peak in 2056 (Laing and Buisson, 1998). This is because expectation of life has increased progressively over recent years, especially for women. Eighty percent of all deaths occur in the over-65s, and this proportion is expected to continue to increase (DOH, 1992). In the United States, it is estimated that elderly people (aged 65 and over) will be 67 million in 2040 in the Census Bureau middle-series projection, which is the series almost always cited. This is over 2.5 times the number of elderly people than in 1980 (the actual number of elderly people was 25 million in 1980) (Guralnik, Yanagishita and Schneider, 1988).

In Taiwan, population ageing is also noticeable (as noted in chapter 1). The elderly population aged 65 and over form approximately 8.2% (1.81 million elderly people) of the total population in 1998 (Department of Health, R.O.C., 1999) and is projected to increase to 14% by the year 2021 and 21.6% by the year 2036 (Council for Economic Planning and Development, Executive Yuan, R.O.C., 1993). Similarly, the older elderly people (80 and over) is the group of elderly people who increases the most rapid in Taiwan (Wu and Chang, 1997).

2. *Fertility and Mortality rates*

The development of an 'ageing population' is due to the convergence of two major trends. The first is the long-term downward trend in the birth rate, the second is the improvement in life expectancy throughout the world. In the United Kingdom life expectancy has risen by more than twenty years this century (Henwood, 1992).

In particular this is due to a reduction in child mortality which reflects improvements in public health and medical advances in the prevention of many fatal infectious diseases in childhood. Increases in the life expectancy of older people reflect improvements in the quality of life in the second half of the twentieth century and to a limited extent some of the achievements of medical science. However, in the UK, it is estimated that amongst those people aged 85 or over, one in five will have dementia (Jorm, 1990; Kay, 1991) and three in five a limiting long-standing illness (DOH, 1992a).

In Taiwan, fertility levels have also decreased dramatically (see chapter 1). As a result of these patterns, the ratio of adult children to older parents will diminish substantially in the future. The mortality levels in Taiwan also dropped from 18.15 per 1000 in 1947 to 5.60 per 1000 in 1995 (DOH, 1997). It is also witnessed by the improvement in expectancy of life.

3. *Gender differences in longevity*

An important feature of human ageing is the greater longevity of women compared with men, a differential which has increased during the twentieth century. According to the report of Salvage (1995), in 1993 of the European Union, there are roughly the same numbers of men and women of aged 60-64 but with increasing age, the imbalance between the sexes increases so that in the age 80 and 84 year old group there are two women to every man and in the 90 to 94 year old group the ratio is three to one. The imbalance in the numbers of older men and women has a number of consequences, particularly in terms of marital status and living arrangements. Due to increased longevity, and the tendency for men to marry women younger than themselves, women are more likely to experience widowhood. Fewer women than men remarry following widowhood or divorce and consequently more older women than older men live alone. In addition, given the predominance of women among the 'very old', they are more likely to live with others or need institutional care (Arber and Ginn, 1991; Bond et al, 1993), and are also more likely to have low incomes (Dooghe, 1993).

In Taiwan, the sex ratio between older women and men has been shown in chapter 1. It has also shown that older women aged 80 and over will outnumber older men in the future (see also Table 1-4*).

4. *Living arrangements*

There will be fewer adult children available to care for elderly parents in the future. In the United States, among women aged 65 in 2010 (born prior to the baby-boom cohort) only 10.6 percent will be childless, compared with 18.5 percent of women reaching age 65 in 2030 (born in 1965). The average number of children born to women will be significantly lower for cohorts of women retiring after 1990 (Zedlewski & McBride, 1992).

In the United Kingdom, there are now far fewer children per person of pensionable age in the 1990s than there were twenty or thirty years ago. This reflects changes in family size and family structure. The average household size in Great Britain fell to 2.4 in 1994-95, compared with 2.9 in 1971. This is partly due to the increasing elderly population who tend to live alone, but is now also affected by the increasing number of people under pensionable age, particularly men, living alone. Other factors which lead to smaller household sizes include the divorce rate, and falling family sizes as people choose to have fewer children (Central Statistical Office, 1996). For example, in 1994-95, there were 43 percent more households in Great Britain than in 1961, partly because households now contain fewer people. In 1961, 38 percent of households in Great Britain comprised married couples with dependent children and the proportion fell to 25 percent in 1994-95 (Central Statistical Office, 1996). All these reflect changes in family size which decreased quite sharply.

Between 1981 and 1991, the most substantial changes in household size in the United Kingdom occurred in elderly people, especially those over 80: in this age group the percentage living alone increased by 10 percent, with a similar reduction in the proportion living in their children's homes. Now only 6 percent of the over-65s live with their children (Office of Population Census and Surveys, 1994). The increasing participation of women in the work force has made it much harder for the typically one available daughter or daughter-in-law to provide support to older relatives. The impact of divorce cannot be underestimated either. These changes may result in a weakening of connections between the generations. The term 'intimacy at a distance' is now used to express the help given by families who live far apart from their older members. But it does suggest that contacts with other than family members are likely to be relatively more important nowadays--especially contact between peer groups, people of the same age and position in life who also often

share similar interests (Coleman et al, 1993).

As a predominantly Chinese culture, Taiwan shares with many countries in East Asia a tradition which views the formation of a multi-generational extended family as ideal. At the same time, it has undergone rapid demographic change, manifest in sharply lower fertility, increasing life expectancy, and continued urbanization; and a dramatic economic transformation from a fairly poor agricultural country to a prosperous industrialized society. Family structure also has been influenced by the change: there are likely to be more older people in families because older people live longer and this situation, for some families, may add to a family burden. Expectation for support from sons in old age was one of the major driving forces for son preference in Taiwan. In fact, the rate of elderly people living with their married sons has decreased from 77% in 1980 to 69% in 1986 (Chang et al., 1987). And this rate was further lowered to 62.9% in 1991 (Statistics Office, Executive Yuan, Taiwan, R.O.C., 1992). Furthermore, the number of women participating in the working force is greater than ever. This forces the government to face the challenge of decreasing family man power and the care problems of elderly people in our society.

According to the research of Hermalin (1990), he found in Taiwan that at every age up to age 80 two-thirds or more of the men are living with a spouse; for females, the percentage living with a spouse drops below 50% after the age of 70 and decreases sharply by age thereafter. Another observation worth noting is the tendency for higher proportions of men than women to live alone at each age. This pattern is largely a result of the influx of young men from Mainland China in 1940-50, a high proportion of whom never married. The slowing of population growth and the migration patterns (from Mainland China in World War II) have led to a 25 % reduction in average household size, from 5.6 in 1949 to 4.1 in 1988 (Hermalin etc., 1992). Regarding the location of children, it is interesting to note that the proportion of children not in the household who are living nearby or in the same town represents at least one-third of all such children, and tends to increase with the age of elderly people (through age 75-79) for both male and female respondents. These suggest that a substantial proportion of the elderly people have at least one child within close proximity. Of additional interest is the distribution of the oldest sons with respect to their status in traditional Chinese culture. Nonetheless, clearly, in the future,

increasing numbers of elderly people will have fewer children to call upon.

Taiwan has completed the demographic transition from high to low birth and death rates during the past forty years. The central concern of population policy is shifting from fertility and family planning to aging issues, e.g., the provision of social security, health care, and counseling for the old (Lin, 1987).

2.2.2 Dependency

2.2.2.1 Definition

Dependency is "A state in which an individual is reliant upon others for assistance in meeting recognized needs" (Wilkin, 1987, pp. 868). It has been differentiated with impairment, disability and handicap and fundamental to the concept of dependency is its reference to a social relationship (Booth, 1985; Wilkin, 1987). According the WHO (1980), the classification of impairment, disability and impairment was distinguished as follows:

- Impairment—loss or abnormality of physiological, psychological or anatomical structure or function;
- Disability—restriction or lack of ability to perform an activity;
- Handicap—disadvantage suffered by individuals as a result of ill-health due to inability to fulfil a role which is normal for someone of that age, sex and culture.

Therefore, unlike disability, dependency cannot be seen as an attribute of individuals (Wilkin &Thompson, 1989). Disability can be legitimately be measured at the individual level without reference to the response of social environment. Handicap can also be measured in terms of the experience of disadvantage by the individual. However, dependency, on the other hand, requires reference to the specific responses of the social environment to the individual (Wilkin, 1987). Allsop (1995) explained the term 'dependency group' and indicated that "a common characteristic is that their condition is not amenable to curative treatment; there is a potential cost of long-term use of medical and social services and needs are multiple and not the responsibility of a single profession" (pp. 89).

Booth defined dependency "as a way of describing the quality of the relationships between residents and their carers in homes for the elderly" (Booth,

1985, pp. 11). Dependency implies interaction with other people and with physical and social environment (Booth, 1985). In an institution, a resident's degree of dependency actually results from the interaction of physical disabilities and mental and social functioning with the environment created by the home (Wilkin &Thompson, 1989). Heuvel (1976) distinguished three ways of conceiving dependency: dependency may refer to a practical, physical *helplessness*; a situation of *powerlessness*; and a psychological *need* (cited in Booth, 1985, p. 12). Wilkin (1987) further introduced a classification matrix between different aspects of dependency (including orientation, activities of daily living, mobility, occupation, social integration and economic...etc.) and causes of dependency (including crisis, disablement, transitional/developmental, social/cultural...etc.).

2.2.2.2 Levels of dependency

Laslett (1996) divided the human life into four ages. Among them, the third age is considered a period of fulfillment for physically and mentally fit people in retirement and the fourth age is associated with disability and dependency. The size and pattern of the fourth age is critical important as it is closely associated with use of health and social services (Fried and Guralnik, 1997). The health characteristics of the future elderly population will interact with demographic characteristics to determine the need for long term care, especially nursing home services.

An American study has shown that assuming the observed entry patterns continue into the future, the number of elderly persons needing care in nursing homes will increase from 1.8 million to 3-3.4 million in 2010 and to 4.3-5.3 million in 2030 (Zedlewski and McBride, 1992). This research also indicated that the number of unmarried elderly experiencing difficulty with the Activity of Daily Living (ADLs)[1] will increase from 3.1 million persons to 6.4 million in 2030, indicating a potentially large increase in the need for in-home services.

In the United Kingdom, Walker (1993) argued that although only a small proportion of the population aged 60 and over need help with activities of daily

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[1] Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs) have been traditionally used by social services in assessing elderly people's need for long-term care (Challis et al., 1995).

living, however, disability and dependency do grow with increasing age (Walker et al., 1993; McGlone and Cronin, 1994). One study which address the question of dependency at a European level found that just under two-fifths (38%) of the population aged 60 and over said that they were suffering from functional incapacity (Walker et al., 1993). However, there was an association between age and disability: 32% of those aged 60 to 64 reported a limiting long standing illness or disability compared with 47% of those aged 80 and over (Walker et al., 1993). Laing and Buisson (1998) also reported that in England mid 1997, the risk of elderly people living in an institution (including a long stay hospital or care home) increases with age. The percentages increased from 1.0% among 65-74 age group to 22.4% among 85+ age group.

In addition, rates of disability among women are higher than that among men. For example, in England and Wales (UK), research showed that 11% of men aged 65 and over were disabled in 1996, whereas the figure of women was 19%. It was found that women accounted for 72% of the disabled group (Melzer et al., 1999). With increasing numbers of women living into very old age in the future this could have significant implications for care. Many of these elderly women will be living alone, and with relatively high levels of dependency (compared with younger women), and they are therefore likely to need a high rate of practical, physical and nursing care (Salvage, 1995). Darton and Wright (1992) showed that in residential homes, 9% to 10% of residents were only mobile in a wheelchair or chair bound or bed bound; in nursing homes the proportions rose to over 30%. This indicated that there is a widespread functional impairment among residents within residential and nursing homes. Studies in the EU show that the most significant health problem among elderly people in the European Union are cardiovascular complaints, malignant tumors, psychological illnesses, diseases of the skeletal system (arthritis, osteoporosis) and respiratory tract diseases (Eurostat, 1993b).

Worldwide attention is paid to the increase in dependency levels among elderly people. According to Wu's (1994) research in Taiwan, three leading chronic conditions were: hypertension, arthritis/gout, and heart disease. The estimated prevalence rate for elderly people with one or more chronic conditions was 73%. The prevalence rate for elderly people with 2 or more chronic conditions was 44.5%. The above result indicates that multiple conditions are common among elderly

people. Another finding in Wu' study was that about 8.8% of the elderly people had difficulty with one or more ADL tasks. About 12.9% of older people experienced IADL limitations. The incidence rate of getting any one kind of ADL disability was about 4% during one year interval. In addition, the hospital admission rate was 14.9% per year. About 4 out of 10 older adults had seen a doctor in the past month and 6 out of 10 had seen a doctor in the past 6 months (Wu, 1994).

Hafner (1986) reported that, increases in life expectancy among younger and older people, as well as the advances in medicine since the turn of the century, have led to the old members of the European Union using an increasing level of medical care. However, some research in Western countries supported the view of a general improvement in health expectancy. For example, one piece of the American research showed that 'disability-free' life expectancy increased at a lower rate than general life expectancy between 1970 and 1980 (Crimmins et al., 1989). The Royal Commission Report (UK, 1999) also noted that "the factors which are causing us to live longer are also resulting in the extra years of life being free from severe disability" (pp. 15). There is also evidence for this view from the research of Grundy (1998). This paradox indicates that new medical technology may reduce mortality risk but may not reduce the risk of chronic illnesses. Any increase in life expectancy may also mean longer periods of disability and dependency for elderly people (Salvage, 1995).

2.2.3 Elderly people's preferences for care

Elderly people's wishes, desires and attitudes towards long term care will be important factors influencing supply and demand. There is a complex interaction between intergenerational traditions/ behaviour, expectations, political ideology and level of formal provision (Salvage, A., 1995).

Salvage (1995) has reported that the expectations of elderly people will differ considerably across Europe. We cannot assume that traditions of care will continue in the future, but must look ahead to the next twenty years. Clearly, the preferences of elderly people express in terms of source of care link not only with cultural traditions but also with existing social policies and levels of service provision. Zsembik (1996) argued that preferences reflect both the society conditioned desire

for a particular outcome and the set of available alternatives, and thus represent an important dimension that older adults use in making decisions about living arrangements. It has been suggested that, while elderly people in Southern Europe appear to prefer family care, Northern European elderly people are more likely to favor formal service provision (OECD, 1992). While there may be some truth in this, there are dangers in simplifying matters to this extent. Observed differences may well directly relate to service availability. For example, research has found that most elderly people wish to retain their independence and autonomy and prefer to stay in their own homes (Allen et al., 1992; The Royal Commission Report, 1999). Often, for reasons of poverty or disability, this was not possible, but a preferred pattern of life was to live close to but separate from their children. One piece of previous research found that even widowed people usually maintained their own households (Laslett, 1976). They would prefer what has been termed "intimacy at a distance"; that is, the help given by families who live far apart from their older members (Coleman, 1993). "Elderly people want to be on good terms with (their children), but do not want to rely on them too directly" (Finch, 1989, pp. 29). Where services have been made readily available, these come to be absorbed into cultural tradition (Daatland, 1990). Thus, in those European Union countries with well-established provision, future demand for services is likely to be stronger as a response to increased availability of public services than in those with less well-developed services (Salvage, 1995; McGlone and Cronin, 1994).

Research by Phillips (1992) in the UK pointed out that the majority of people who apply for residential care do less from choice than from circumstances. The risk of institutionalization has been well documented (please see chapter 3). For example, people who are very old, more disabled and more likely to have high cognitive impairment scores were the most likely to enter local authority homes (Sinclair et al., 1988). Some other factors for admission to homes include lack of informal support, inadequate domiciliary support and inadequate housing (Townsend, 1962; Wierik et al., 1992). Neill et al. (1988) indicated that choice did not arise from the disabilities of the old people or the strains of the carers. "Choice was constrained because of the context within which the application was made--a hospital or a home of a relative who was unwilling to continue to provide care." (pp.194). The processes of selection are also important in determining who is allocated a residential place

(Paterson, 1978). Furthermore, in terms of decision-making about care provision, some older people have the least influence in the decision making process. Sometimes their relatives and the professionals in the system dominate the decision (Jamieson, 1991).

In Taiwan, as mentioned earlier, the formation of a multi-generation extended family is regarded as ideal. Most of the men and women live with their spouse, although the percentage living with a spouse decreases by increasing age (Hermalin, 1990). Expectation for support from sons in old age was common in Taiwan. Elderly people traditionally lived with their oldest son and if needed, were taken care of by their spouse or daughter-in-law. Greenhalgh (1982) held that the 'chia', a Taiwanese household unit, is a more appropriate economic unit in Taiwan than the household on the basis of her analysis of the degree of interdependency among chia households. It seems apparent that most of the elderly people in Taiwan prefer to live with their children (MOI, 1996). However, in practice, mortality patterns and economic circumstances limited the size and generation scope of families. As Hermalin (1990) indicated, in the future, increasing numbers of elderly people will have fewer children to call upon.

Because of the changing circumstances, Chang and Ofstedal (1991) argued that what was a traditionally strong preference has been substantially modified in recent years. In their research, the results suggest that women who chose their own marriage partners, obtain more education, live in a city, reside in a nuclear family, and whose husbands have higher income are less likely to expect to live with their sons in old age. These findings lend support to the hypothesis that social and economic development may alter people's expectations, and perhaps desires, to live in extended households. In terms of the view of institutional care, Wu (1994) surveyed 1,583 old adults aged 65 and over in Taiwan and reported that only about one out of five respondents expressed their willingness to live in a nursing home when they become disabled. Mainlanders and people with higher education levels have expressed a greater willingness to reside in a nursing home if they need it in the future. Age and marital status may be the two most important factors in patients' admission to nursing homes as research in Hong Kong has shown (Woo et al., 1994). Kemper and Murtaugh (1991) also indicated that marital status was strongly associated with lifetime nursing home use, even after adjustment for differences in

longevity and sex among marital-status groups. Therefore, to what extent elderly people in Taiwan will accept and receive nursing home care are questions which need more research.

Research on preferences for care have often found elderly people's negative view/ attitudes to institutional care (Walker et al., 1993). However, preference for care does not occur in vacuum. As Glendinning and Mclaughlin (1993) point out, there will always be some individuals whose care needs are such that institutional care is preferable and desirable. Salvage (1995) also reported that several studies have suggested that attitudes towards accepting formal care services become more positive as higher levels of service provision are introduced. And those who have grown up familiar with the provisions of the Welfare State will undoubtedly have higher expectations of state care than some of today's elderly people. Preference for care, therefore, is a product of dynamic balances. It depends on the interaction of different factors. These include cultural traditions, intergenerational relations, attitude to institutions and available options. Notions of independence/self-determination and social welfare policies will also be important (Salvage, 1995).

2.2.4 Services available

Whether services are available or not and access to them play very important roles which influence demand for long term care. These were defined by previous research as 'system' or 'macro-level' variables as opposed to the 'micro-level' variables such as data collected from the older adults themselves or their families (Kincade et al., 1998). It could not be assumed that existing services that were under-utilized were not meeting the needs of elderly people. American studies have shown that three factors could have an influence. These are: 1) the community was not aware of the program's existence; 2) the program was considered to be positioned for the 'old folks'; or 3) the elderly people could not find transportation to access these particular programs (Rummel et al., 1994). It is believed that availability, accessibility and continuity are the basic factors for a comprehensive health care delivery system.

Long term care in the U.K., for example, provides a variety of care services which include institutional care (nursing homes, residential homes), home care,

palliative care, respite care, sheltered housing, granny annexes, specialist transport services... etc. It is held that the National Health Service and Community Care Act 1990 aimed to give elderly people more power to exercise choice over services. The attention was to deliver needs-based assessment and delivery of services and a mixed economy of welfare (Mayo, 1994). However, according to Leece (1995), choices for elderly people and carers do not appear to have increased much. Choice in reality depends much on health resources availability and an information system on which to base a decision (Vincent et al., 1987) as well as the key role of the care managers (Leece, 1995). In considering services that are available for elderly people, Sinclair (1990) mentioned that factors that in the NHS such as the closure of geriatric beds, higher turnover in acute, general and surgical wards, and the withdrawal of continuing care services have led to greater demands for places in residential and nursing homes. In the UK, an up-to-date account of falling away of the NHS in terms of various aspects of hospital care was given by Tinker et al. (1994). At the same time, Tinker reported that nursing home places have grown considerably (Tinker et al., 1994). As the evidence from the PSSRU/CHE survey showed, the present spectrum of facilities in the independent and public sectors in the UK provides opportunities for consumer choice, continuity of care and appropriate payments for residents. The loss of any part of the spectrum could place heavy financial and organizational pressures on community care. Therefore, considerable attention needs to be given to the whole system of continuing care for elderly people before any present element is reduced or eliminated (Darton and Wright, 1992).

The government of Taiwan has drafted a 15-year plan to develop a network of long term care facilities for the aged, including, among others, chronic hospitals, nursing homes, home care and hospices (as noted in chapter 1). According to the plan, the population for over 65 years old will reach 10% of whole population in Taiwan in 15 years. So the target year is set at 2010 for 15-year projects. This plan includes the following goals:

- Establish the working models and planning of health service networks
    1). Home health care
    2). Nursing home
    3). Day Care

4). Discharge planning

- Establish incentives and management system
- Evaluate the cost-effectiveness of long-term care for reimbursement from the National Health Insurance System
- Human resource training
- Initiate relative studies in sub-acute care and long-term care

Recently, there have been more and more institutional care facilities, mainly in the private sector, established in Taiwan. These may represent elderly people's needs for long term care. Due to the increase in the older population, long life expectancy, chronic diseases and female labour participation rates, it could be argued that the increasing number of formal and informal forms of institutions in Taiwan has shifted some responsibility for caring elderly people from the family to the society, especially for those elderly people who suffer from chronic diseases. In Taiwan, the enforcement of the Nurse Law on 1991 and the Guideline for the Establishment of a Nursing Institute on 1993 are a new start for nursing care. This means the enhancement of nursing care capability and extension of their roles to one of greater independence. However, the health insurance scheme, e.g., the national health insurance or business insurance, can be an important factor in the development of gerontological nursing and welfare (Lin, 1994). It is because the utilization of health services is not only associated with service availability but also the economic power described below.

2.2.5 Political/ Economic power

Two further factors which have the potential to affect elderly people's demand for care in the future are their purchasing power (in terms of their resources to purchase care) and their political power. Also relevant is the willingness to pay by the next of kin.

2.2.5.1 Income and pensions of elderly people and willingness to pay by next of kin

One study of residential care in the UK showed that in many cases, people

were able to define their own needs and expressed their felt need in the private sector through their ability to pay. The majority of people were able to pay for residential care through their own sources of funding (Phillips, 1992). The Joseph Rowntree Foundation Inquiry, UK (1996) also gave evidence that although a higher percentage (32%) of elderly people had been financially supported by local authorities for their institutional care in 1995, many elderly people and their families still buy long-term care themselves.

Public health debates have always recognized that income, and thus living standards, are important as a determinant of health. Studies in the US showed that 'economic dependence' is also related to health service utilization (Wan and Odell, 1981). Elderly people with higher incomes were more likely to use health services (Evashwick et al., 1984; Greenberg and Ginn, 1979; Morris et al., 1987, 1988). In the UK, evidence has also been given by the Royal Commission Report (1999) that "people over 70 years old in receipt of income support are much more likely to enter institutional care than those who are not" (Vol. 3, pp. 117). We can also hypothesize that those who can afford health care will be advantaged in relation to their health. Although the nature of the link is still debated, there is a generally broad agreement that there is a relationship between socioeconomic status and health status (Barker, C, 1996).

In European countries, elderly people's retirement income mainly comes from four sources: a basic pension provided by the state and other social security income; a supplementary occupational pension; personal savings and employment income (Reday-Mulvey, 1990). Walker, et al. (1993) reported that "economic security in old age is primarily a function of the interaction of socio-economic status during working life and the pension system that has developed in a particular country" (pp. 20). Among European Union countries employment income plays a relatively small part (although there are considerable variations); while state pensions providing the bulk of income (Salvage, 1995).

The living standards of elderly people, in the majority of countries, have risen in recent years (Walker et al., 1993), however, the poverty rate among aged 65 and over remained above the average rate for that country's population (Salvage, 1995). This may mean that some elderly people who cannot afford expenditure on health services are likely to have to rely heavily on unpaid family care.

Retirement age for most trades (e.g. public employees) in Taiwan is 65. The elderly people's income mainly comes from employment income and occupational pension (i.e., from the Government Employees' Insurance, Labour Insurance), while personal savings also plays an important part. In 1993, 56% of the total population were covered by social security program (see also 1.4.3). A national pension program is not yet introduced and only some city and county governments including Taipei, Ilan, Hsinchu, Tainan, Chiayi, Kaoshiung and Penghu in Taiwan provide old-age allowances ranging from NT.3,520 (£54.3)-NT.7,040 (£108.6) to elderly people (aged 65 and over) monthly (Kwon, 1999). It was estimated that the number of persons receiving pensions or allowances from the government was 27.5% of the elderly population aged 65 and over in 1997 (Kwon, 1999).

For those elderly people unemployed or without enough pension in Taiwan, their sons traditionally have to take care of them. Nonetheless as mentioned before, factors such as the development of nuclear families (husband, wife and two children on average), the change in social values, more women (spouse, daughter and daughter-in-law, the so called traditional carers) participating in paid work, trends in divorce and remarriage, more mobile families...etc. may result in families that are smaller and less in geographical proximity. Wu and Chang (1997) indicated that among elderly people aged 65 and over in the community, the rate of them living alone or with spouse only was 32.9% in 1996 which was higher than that (29.1%) of 1993. Younger generations are less likely to take care of their parents than before because of the various reasons mentioned above and more elderly people may have to use the formal care system. All of these changing factors may challenge traditional culture in Taiwan. To what extent are sons willing to pay for the long term care services for their parents and to what extent they can afford this is unknown and needs further research.

2.2.5.2 Political power

Salvage (1995) showed that political power may enable elderly people to make their needs and wishes known and to ensure that these needs and wishes are met. At present, levels of engagement of elderly people in political or pressure group activities are very low in the EU (Walker et al., 1993). However, developments are

occurring. Because of elderly people's longer life expectancy and "a general improvement in health expectancy" (The Royal Commission Report, pp. 15), they may become more able to do so. One assumption is that considerable sections of the elderly population are affluent, particularly through home ownership and occupational pensions (Moore, 1988) and therefore have the opportunity to choose between alternative care. As a result of their increasing purchasing power they would argue that elderly people have also changed their attitude toward private welfare (Phillips, 1992). Judith Phillips (1992) stated (p. 37): "Old people's perceptions of need seem to have changed, so that they expect more care and help and are less likely to struggle on when they see it is available at reasonable cost." (Phillips quoted from Midwinter, 1986, p. 4). Wilson (1993) also has drawn attention to a widespread belief that elderly people in the future, will be less passive, have higher expectations and be more demanding than current pensioners. It was projected that by 2015, elderly people will be more educated, more articulate, more prepared to demand services which they see as a 'right' and more willing and able to organize themselves politically (Salvage, 1995). All of these developments will influence health policy. Not to be underestimated either when considering elderly people's preferences and benefits is their growth in numbers and therefore voting power.

In Taiwan traditionally, elderly people perceive 'being taken care of by their sons' as a 'right' and rely on their offspring when they are old. Although most of the elderly people in Taiwan are still taken care of by their families, society is changing. More elderly people are now either living alone or with their spouse only. Their elected representatives in their constituency are telling them that they should expect more from the government.

Empowerment of elderly people is also expected to be a trend in Taiwan. Together with the encouragement from the politicians, elderly people are expected to be a more important group in the future. It appears that when elections are held, with the encouragement of some voluntary groups for old people, the 'right' topics for elderly people become the focus of the competing political parties.

2.2.6 Informal care/ Carers

In the UK, the care of frail elderly people has been mainly provided by their families but also by the private, statutory and voluntary sectors. Families continue to provide the majority of care (Parker, 1990) but where family care has not been available frail elderly people have always been cared for in a variety of community-based care and institutions (Thomson, 1983). The availability of informal sources at home or in the community and how well informal carers cope with the caregiving tasks have a major impact on whether elderly people can stay at home or not (Warburton, 1994; Tennstedt et al., 1996).

According to the 1990 General Household Survey, at any one time there are approximately 6.8 million people in Britain who offer some form of support to people with care needs; 1.5 million carers offer more than 20 hours per week of care (OPCS, 1992). Of these, 28 percent are aged 65 or over. Many older carers are spouses, and many report that they themselves have some form of long-standing illness. According to Tennstedt, McKinlay and Kasten (1994) in their study of disabled elderly people in Massachusetts of USA, projected need/demand for community-based long-term care services were that at any point in time, about 20 percent of disabled elders would experience some unmet need (usually just one). For the majority of elders, the unmet need is temporary rather than persistent. This need would eventually be met, most likely by family carers. In the UK, most people working with elderly people also feel that elderly people do prefer to remain in their own homes for as long as possible (Association of Directors of Social Services, 1994). It is generally argued that the aim should be to maintain elderly people in their own homes, particularly if it is their choice, but the community must be equipped and funded to accommodate this. Inappropriate placement of an elderly person is not only costly to the entire service but also has huge emotional and financial implications for the person and family concerned (Morse & Jenkinson, 1995).

Previous research across Europe and the USA has indicated that informal carers are most often family members, most often spouses and most often women (Brody, 1985; Dellasega, 1991; Joseph Rowntree Foundation Inquiry, 1996; Grunfeld et al., 1997). Pruchno (1990) in his study of carers mentioned that, in the United States, spouses spent an average of 74.4 hours a week helping their

spouses/partners. These care activities include helping with toileting, eating, personal care, bathing, getting around, dressing, getting in and out of bed, housework, laundry, administering medications, using the telephone, cooking, money management, grocery shopping and going out to places. These activities are almost wholly provided by family members, usually spouses or daughters (Wenger, 1990). Pruchno (1990) also reported that spouse carers received a minimal amount of help from children or other relatives with their caregiving responsibilities.

Families are a source of both emotional and practical support within which a commitment of reciprocity is often important (Joseph Rowntree Foundation Inquiry, 1996). Pratt et al. (1987) reported high levels of burden, poor health and low morale among carers of community-dwelling relatives. Informal carers in the community save the state enormous costs but on the other hand incur immeasurable economical and emotional costs for themselves (Davies, 1988). It was evident from the Joseph Rowntree Foundation Inquiry, UK (1996) and a study by Hancock and Jarvis (1994) that people who cared for others for more than ten years are today financially disadvantaged in almost all respects compared with non-carers. Carers would benefit from carers' support program. Intervention strategies should be tailored to the differential needs toward the goal of enhancing the capacity of informal networks to maintain frail elders in the community (Mui, Ada C., 1995). However, changes in marriage patterns and family formation as well as the increased labor market participation of women raise questions about future supplies of informal care (Victor, 1991; Joseph Rowntree Foundation Inquiry, 1996).

Some American research has indicated that when formal community care is expanded, it did not result in a substantial reduction in informal caregiving (Kemper, 1988). Families even remain involved in caregiving following the institutionalization of a relative (Bowers, 1988, Pruchno, 1990). That visiting occurs regularly and that emotional struggles continue are particularly so for the wives of the elderly and health-impaired husbands (Ross, 1991). Research findings show the continued participation of families in tasks following the admission of a relative to a long term care institution (Ross et al., 1993). More contemporary authors referred to the role of families as resources to their institutionalized relatives. They suggested that involvement would be beneficial to both the long term care setting and the family as they adapt to this new phase in their family care (Buckwalter & Hall, 1987). Weiner

emphasized that formal care will supplement the essential informal care delivered by friends and relatives, not replace it (Weiner, 1994). The families' role and experience in the decision making process to institutionalize their frail elders will be further explored in the next chapter.

In Taiwan, informal care is the main form of care provision in the community. Most (80-90%) of the disabled respondents in need of help were cared for by informal carers (Wu et al., 1994). This indicates the importance of family care in the supply of long-term care in Taiwan. Spouses, daughters-in-law, and sons/daughters were the major primary carers. Although carers have expressed a heavy caregiving burden, most of them could not accept institutional care for their elderly relatives (Wu et al., 1994). Other research by Hu et al. (1995) also supported the view that home care for the disabled elderly people was the main mode of long-term care in Taiwan. Although the home (visiting) care program has been developed, carers' needs and the adequacy of such services have not been thoroughly explored, especially through the carer's own experiences. Research about the informal carer and caregiving burden has just started in Taiwan. The relevant research and the unanswered questions about this issue will be described in next chapter.

According to Bond (1993) in the UK, in the longer term, it is expected that the control of the supply of residential and nursing-home care by limiting the amount of money available to spend on institutional care will lead to only extremely frail people being cared for there (Bond, 1993). However, experiences of similar development for the care of people with learning difficulties suggest that attempts to abolish all institutions may be unsuccessful even with the necessary political will (Bond, 1993). When the need for care increases beyond what families can provide or when carers are no longer available, the decision to relinquish care to professionals will be the only alternative and relieve the carer of much of the responsibility for time-consuming and physically demanding caregiving tasks. Therefore, some alternatives to nursing home and residential care were explored by some local authorities and housing associations in the UK, such as the development of very sheltered housing with extra care services being provided to frail tenants rather than transferring them to institutional care (Tinker, 1989; Fletcher, 1991).

The research findings referred to above confirm that the care of elderly people is still mainly provided by their families today. Many researchers in the UK indicate

that family members and friends--often female--provide the bulk of personal care and social care support to elderly people, and often do so in an efficient manner but at a high cost to themselves (Allen, et al., 1992; Warburton, 1994). Under the fiscal pressure of governments, community care seems to be a tendency. However, the situations of users in need and at risk cannot be fully appreciated without insights into carers' circumstances and knowledge about the relationship between carers and dependents. It is found that, all too often, the carers' needs are ignored by the local authority (Davies and Baines, 1991). As Caldock & Nolan (1994) found, there is still some way to go before users are fully empowered. They argued that it is still the case that elderly people are assessed for services in terms of what is available rather than according to their needs. Indeed, until what constitutes a "needs-led" assessment is clarified, the situation is unlikely to improve.

2.3 FACTORS THAT INFLUENCE THE SUPPLY OF LONG-TERM CARE

A wide spectrum of needs is covered by the broad concept of continuing care (the Joseph Rowntree Foundation Inquiry, 1996). Some people may need high levels of care while some others will require only a small amount of assistance to be functionally independent. Brody mentioned in his book, "it is artificial to dichotomize long-term care into institutional care and community care. Long-term care should constitute a continuum; institutions should be part of the community..." (Brody, 1977, pp.15). He indicated that it is of primary importance that the choice of living arrangement be based on thorough exploration of options. Such an exploration requires knowledge of needs and of resources to meet those needs, whether those resources are available to maintain the individual in his/her own home, in congregate facilities, or in facilities providing less comprehensive care.

Information about long-term care resources, especially the factors that influence its supply are reviewed as follows:

2.3.1 Long-term care resources

2.3.1.1 Long term care resources in the UK

The development of long-term care in the UK is relevant because of the lessons it gives to other countries including the consequences of legislation and policy. Long term care resources (services available) are the main factor which will influence the supply of long term care services in our society.

In Britain, long-term care services for elderly people include home helps, day care, meals on wheels, NHS community nursing services, NHS long-stay beds, residential care and nursing homes (The Royal Commission Report, 1999). It is estimated that 600,000 people aged 65 and over are getting home care from a local authority and about 1 in 20 of all elderly people (480,000 older people in the UK) are in residential settings (The Royal Commission Report, 1999, pp. 8).

The statutory responsibility for providing facilities for those elderly people in need of care and attention is currently divided between the local authority (LA) and health authority (HA).

Before the early 1980s, most long term care was provided in the public sector either in NHS geriatric and psychiatric units or by local authorities in their own residential homes, or through "sponsorship" of residents in voluntary or, less often, private homes (Grundy and Glaser, 1997).

From the early 1980s, however, local offices of the then Department of Social Security (DHSS) began making "board and lodging" allowances to pay for care in non-statutory residential and nursing homes (Grundy and Glaser, 1997). The expansion of local authority homes ceased. The full cost of care was available from public sources for elderly people who qualified on grounds of income and savings. No prior medical and social work assessment was required. While the number of beds in local authority homes and in the NHS sector continued to decline, this was more than offset by a huge growth in the private sector. As a result, the number of places in private residential homes for older people and people with physical and mental disabilities nearly doubled (increased 97%) between 1979 and 1984, and, by 1990 has risen by 130% since 1979 (Impallomeni and Starr, 1995). Impallomeni and Starr (1995) also mentioned that in 1974, 60 percent of residents in voluntary homes were supported by local authorities; in 1983, 34 percent; in 1992-1993, only 14

percent. Statistics showed that the number of long-term care places in private residential homes increased from 39,253 in 1981 to 155,315 in 1991. The expenditure on income support for those in residential and nursing homes increased from some £10 million in 1980-81 to £1,000 million in 1988 (1988 prices) (DHSS, 1989). This increase in the private sector may reflect both the financial incentives to increase the number of places available and increased demand for care caused by an increasingly frail population and the decreased availability of domiciliary services (Victor C., 1991). This was followed by major legislative change in the early 1990s---the 1990 NHS and Community Care Act which became fully operational in 1993. This returned responsibility for assessing needs for long term care and purchasing it to local authorities (Grundy and Glaser, 1997).

A recent survey from Laing & Buisson in 1998 showed that there were an estimated 561,600 places in residential settings for the long stay care of elderly and physically disabled people across all sectors (private, public and voluntary) in the UK. The total value of this market was estimated at £8.5 billion, of which the private sector accounted for £5.3 billion, the public sector accounted for £2.1 billion, while the other £1.0 billion was supplied by voluntary nursing and residential care. The value of the non-residential care market for elderly and physically handicapped people is estimated at £3.96 billion in the year ending of 1997. According to Laing & Buisson (1998), all of the net decrease in capacity in the year to April 1998 was at the expense of public sector provision, while the private sector capacity increased marginally, mainly because of the re-registration of many nursing homes as dual registered homes.

2.3.1.2 Long-term care provision in Taiwan

As noted in chapter 1, it is not until recently that long term care services have become an important new type of provision in the health care system of Taiwan. In the past, there were very few long term care resources which were unevenly distributed in different service system. The public homes for veterans and the very limited public homes for people with mental illness, mainly for psychiatric patients, were the main forms to be seen. Most of the patients needing long term care services were taken care of by their families or kept in acute care hospitals. Recent ageing

problems have led to the provision of hundreds of private unregistered homes for elderly people. The Department of Health, Executive Yuan, R.O.C., is actively planning for the long-term care system to care for discharged or chronically ill patients in the community to shorten the length of hospital stay and to utilize the limited medical care resources more effectively for the care of patients in acute need. In order to establish long-term care service networks and care models in Taiwan, a 15-year long-term care plan was launched in 1995.

A summary of the major activities which are carried out by the Department of Health, Taiwan is as follows:

1) Home Care

Home care under the supervision of DOH, Taiwan refers to the home visiting care provided by nurses and doctors. It includes nursing activities, e.g. continence services, wound nursing...etc.. With its growing population of older people, home care of different types has been tried out locally following the national plan. By the end of 1995, 85 medical care institutions, 11 freestanding home care organizations have signed contracts with the Central Bureau of National Health Insurance to provide home care services (DOH, 1997). A pilot project was conducted by the Department in collaboration with the Government Employee's Insurance Program in November 1989 to include home care in the insurance payment. Results of the pilot project were studied in deciding whether home care should be included in the National Health Insurance Program. It has been currently covered by National Health Insurance Program which was launched in March, 1995.

2) Nursing Homes

Until recently, nursing home services were not available in Taiwan. These that have recently developed are independent nursing home services, provided mainly by the private sectors.

Setting up nursing homes on a pilot basis was begun in 1991. In March 1994, some hospital-based nursing homes and free-standing nursing homes were first legally registered for operation. In 1998, there were 31 nursing homes with 1,276 beds legally registered for operation.

3) Day Care Centers

Hospital-based day care centres are currently available at some hospitals. Some freestanding nursing homes have also started to provide day care services on a

trial basis. In 1997, day care centres in Taiwan cared for around 256,000 person-cases which doubled the service number of 1994.

4) Discharge Plan

No hospital in Taiwan Area had a service to help chronic patients plan for their lives after discharge from hospital. In 1994, three hospitals, the Catholic Saint-Kung General Hospital, the Chiayi Christian Hospital and the Tsu-Chi Buddhist Hospital, were selected by DOH on the basis of region, level of hospital and their ability to provide continuing care in the community to provide this service on a trial basis. In 1995, the Kaohsiung Medical College Hospital also joined the project. This experiment will continue and help the set up of the hospital discharge service for hospitals in Taiwan.

5) Hospice Care

To attend to the special needs of cancer patients in their terminal stage, a set of guidelines concerning hospice care was formulated in May 1995 to promote hospital-based hospice care in hospitals and at home. Eight hospitals, namely the Mckay Memorial Hospital, the Cardinal Tien Hospital, the Changhua Christian Hospital, the Chiayi Christian Hospital, the Saint Joseph Hospital, the Catholic Saint-Kung General Hospital, the Hualien Monroe Hospital and the Tzu-Chi Buddhist Hospital, participated in the pilot project in 1996.

All these long term care services now are developing fast in Taiwan. When this study was conducted, the number of registered nursing homes in Taiwan was 31 (Appendix A). However, there are hundreds of unregistered nursing homes in the market. The Ministry of Interior announced on 19th, June, 1999 that they have started their action to close the unregistered residential homes in Taiwan. In near future, all the residential homes in the market have to be registered. However, no further arrangements about the people currently living in those unregistered homes have been seen. The future of the unregistered nursing homes which supposedly should be supervised by DOH remains unknown.

2.3.2 Alternative services

Long term care services, especially nursing home services are highly alternative in nature. The dynamic process of need for long term care is influenced

not only by service availability, service accessibility but also by other aspects of the relevant services.

Kemper and Murtaugh (1991), for example, reported that many factors could affect future use of nursing home services. First, because of the longer survival of spouses, the percentages of the very old who are married could increase in the future, reducing their reliance on nursing home care (demographic factor, marital status). Second, the changes in active life expectancy also affect nursing home use. Active life expectancy is a measure of the amount of time persons are expected to be able to continue to function independently (Katz, S. et al., 1983). If elderly people get healthier and more independent in their old age they will need less institutional care. Among others, the introduction of new financing methods for acute or long term care, prospective payment of hospitals, limitations on the supply of nursing home beds, changes in the participation of women in the labor force, increases in coverage of long term care by private insurers, and increases in the wealth and income of elderly people are factors that could alter the use of nursing homes in the future. Some of these changes would increase the use of nursing homes, while others would decrease it. The alternatives of nursing home services may be shown significantly when elderly people or their carers found some other potential supply in more need-led forms to satisfy their needs.

In Taiwan, the National Health Insurance Scheme has now covered all the expenditure on hospital care. Although patients have to pay 5-30% of the medical fee out of pocket (to prevent a large demand), there are still ceiling standards for this 5-30% which means that consumers are protected. The standards for out-of-pocket (e.g. co-payment) ceiling are NT. 15,000 per patient per admission to hospital and NT. 25,000 per patient per year (Hsieh and Tsai, 1996). In long term care, only the home (visiting) care has been covered by NHI Scheme since May, 1995. Therefore, the majority of ill patients are treated in hospital and taken care of by their families after discharge.

According to the survey of Department of Health, Executive Yuan (1995), the distribution of people utilizing long-term care services in Taiwan were: 24% in institutional care and home care and community care 76% in 1994 (Table 2-1).

Table 2-1. The distribution of people utilizing long-term care services in Taiwan

Long-term care services (1994)		
The number of people who need long-term care services: 78,117*		
Home care	Family or relatives' care	53,024 (67.9%)
	Home services	2,185 (2.8%)
	Home care	4,153 (5.3%)
Community care	Day elderly sitter services	120 (0.2%)
	Day care	189 (0.2%)
subtotal		*76%*
Institutional care	Residential care	1,925 (2.5%)
	Veteran's beds for disabled	2,122 (3.0%)
	Nursing homes	357 (0.5%)
	Veteran's chronic disease beds	3,032 (3.9%)
	Chronic disease beds (Veteran's beds are excluded)	1,020 (1.3%)
	General hospital beds	3,064# (3.9%)
	Unregistered care institutions	6,985 (8.9%)
subtotal		*24%*

unit: person

Source: Department of Health, The Executive Yuan, R.O.C., 1995.

*The need for long term care services is estimated as 4.5% of the population aged 65 and over and 0.04% of the population aged 64 and under.

#Within general hospital beds (61,284 in 1994 in Taiwan), it is estimated that 5% of them are occupied by long term ill patients.

For the future development of long term care, the government of Taiwan intends to integrate all the services concerned in order to resolve the long term care problems of elderly people in the country. It is envisaged that the long term care services should not only be comprehensive but also be cost-effective to serve people in the long run. Therefore, the possible alternatives of potential supply of long term care resources, especially in the community, would be seen as very important parts of long term care services provision.

2.3.3 Balance of service provision: public, private and voluntary

The balance of care could have important implications for the provision of long term care in the future; reductions in public provision, for instance, would mean a likely increase for the roles of private and voluntary organizations and/or family carers. In the UK, Sinclair (1990) observed that the presence and absence of private or voluntary provision in an area have a considerable bearing on the help that is given

to elderly people. During the 1980s, within England as a whole, the balance between local authority residential care, voluntary sector residential care and private sector residential care changed in favor of the private sector (Tinker et al., 1994). The private residential sector grew exponentially with the annual percentages increases in the number of places ranging from 17% (between 1981 and 1982) to 27% (between 1984 and 1985). It levelled off in 1988 with 12% increase between 1988 and 1989. At the same time, the voluntary sector had small fluctuations in growth while local authority provision levelled out in 1984 (137,200 places) and then declined yearly to 129,800 places in 1989 (Peace et al., 1997).

In contrast to the residential sector, the nursing home sector has seen gradually increases through the 1980s and 1990s. In particular, the private nursing home places has increased from 38,000 in 1985 to 47,900 in 1986, a 26% increase in one year. In 1985, the ratio of residential to nursing home places stood at 7 : 1; by 1990 this had become 3 : 1 and by 1994, 1.5 : 1 (Peace et al., 1997). While the nursing home places (both in the private and voluntary sector) increased annually, there has been a steady decline in the number of NHS beds for elderly people, both for general and mental health needs. For example, in 1994, there were 57,700 beds in hospital, compared to 79,800 in 1988 (Joseph Rowntree Foundation Inquiry, 1996). According to the evaluation of continuing-care accommodation for elderly people by Bond et al. (1989), the NHS nursing home residents were less confused, less incapacitated than the counterparts in hospital wards. In addition, it was found that more residents in the NHS nursing homes had been in institutional care for a longer period and also had been longer in their current location than those in hospital wards. In general, patients in hospitals were more physically and mentally frail than were residents observed in the NHS nursing homes. Therefore, the change of balance of service provision can have major implications for some elderly people if there is a predominance of homes within the major sector which specialize in certain users groups or have marked preferences for the types of people they admit, which could leave some users without suitable provision (Warburton, 1994).

In Europe, the role of the public sector as the main provider of social and health services has receded in recent years; but the state remains the dominant actor, especially in medical and paramedical areas (Salvage, 1995). According to research by Walker et al. (1993), in the sector of long term care and home help services, the

provision of public services is generally strongly complemented by private or voluntary providers in Europe. Italy and UK are the only countries with a predominance of private (including non-profit) supply now, while other countries report a predominantly public supply of facilities or supplied by non-profit associations in the voluntary sectors (Walker et al., 1993). Thus, across Europe there is considerable diversity of "welfare mix" (Salvage, 1995).

In Taiwan, long term care services under supervision of the DOH are mainly supplied by the independent sector, including both the private and voluntary sectors. There were only 4 public registered nursing homes and the rest 27 homes were the private sector. However, there are hundreds of unregistered nursing homes in the market because of varied reasons such as the home being too small to be registered, difficulty in reaching the regulation standard. Also costs could be kept lower when they remain unregistered, so that it is cheaper for the clients (Wu and Chang, 1995).

On the other hand, the government provides the bulk of residential care which is mainly for veterans, citizens with low income and in some cases for patients with special diseases, for example, psychosis, leprosy...etc. but not necessary for elderly people. In 1996, there were 64 registered residential care homes. There were another 14 veterans' homes which could take care of 19,000 veterans (Ministry of the Interior, 1997) (see 1.4.6.2). The residential care homes under the MOI supervision are now enhancing their capacity and ability of nursing care. It is planned that 37 homes (including 19 public and 18 private sectors) in the near future will have the capacity of 4010 beds which can take care of people with chronic medical problems. On the other hand, the 15-year plan for long term care launched by the DOH in Taiwan encourages the establishment of nursing homes (including both the public and private sectors) in every county by the subsidization method[2] and considers the availability of covering the reimbursement of nursing home services into National Health Insurance Scheme in the near future (Department of Health, Executive Yuan, R.O.C.,1995).

A recent report suggested that the increasing tendency towards market-

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[2]Nursing home subsidization method in Medical Development Foundation of Department of Health, Executive Yuan, R.O.C. is described in chapter 5 (Table 5-4). Briefly, when setting up a hospital-based nursing homes, the proprietor can get subsidization on a basis of NT. 450,000 per bed and 80% free interest of the loan.

orientation evident in many of the countries of the European Union is likely to continue. It will be a tendency for the state to contract the delivery of welfare provision to non-state organizations, thus increasing the role of the private sectors in the future (Salvage, 1995). If there are restrictions on the state funding of services, alternative arrangements are likely to be made to cover the cost of care provision (e.g. private long term care insurance) and the balance of service provision will significantly influence the use of the service and its supply.

2.3.4 Alternative sources of investment

In the UK, the number of beds in nursing homes has risen by 350 percent in the last nine years (Laing & Buisson, 1995) and most of the nursing homes are run by the private sector (Salvage, 1995). Although the continuing reduction of NHS hospital beds and attempting to keep people with long term care needs within their own home are the main aims of the UK government, research reports that despite the emphasis on domiciliary support the role to be played by residential and nursing homes remains crucial. (Henwood, 1992). With an ageing society, demand for both residential and community forms of support will clearly increase in the future.

It is possible that many homes entered the residential/nursing home industry as a result of social security policies (Gibbs and Corden, 1991). The extent to which the private sector should be encouraged to expand is a matter for policy decisions by the government. If the preferred objective was an expansion in the number of residential and nursing home places then a reasonable charge would be one that encouraged existing homes to build new accommodation or new homes to enter the industry; conversely, if institutional care is not the policy goal, it is likely that a fewer level of public support will be set than the present ones. Phillips (1992) reported that although some argued (for example, Phillips, Vincent and Blacksell, 1988) that "'welfare' cannot survive in the market place partly because of the inherent contradiction between the pursuit of profit and the pursuit of care". "However, Weaver et al. (1985a), in their study in Norfolk, found that these are compatible and the production of both can be achieved if homes 'balance' the production of profit and care in the right combination" (Phillips, 1992, p.36). "Private care is not primarily about greedy small businesses exploiting vulnerable elderly people. Home

owners in general show a serious commitment to the business of care." (Phillips, 1992, p.37 quoted in Weaver, 1985b, p.151).

Market behaviour theory would suggest that if systems of reimbursement failed to yield acceptable profits, homes might well undertake intense marketing to attract a greater number of people willing to finance their own care in order to reduce their reliance on those in receipt of public funds (Gibbs, I. and Corden, A., 1991). Thus, profitability is an important factor in decisions about running a private nursing home. In a recent estimate of a for-profit chain of 32 nursing homes in seven states of America, about 60% of yearly nursing home charges were direct medical expenses (mostly nurses' salaries), nearly 20% were direct room, board, and housekeeping charges, and the remainder comprised capital, physical plant and administrative expenses (Weiner, 1994). In the UK, Challis and Bartlett (1987) also provided confirmation that running a nursing home is an expensive business and illustrated the wide variations in costs experienced by home owners. Laing and Buisson's market survey (1996) showed that nearly all major companies (running nursing homes) are capable of generating earnings before depreciation, interest and taxes (EB-DIT) and head office overheads in excess of 30%, even if the evidence is blurred on some occasions by different accounting policies. Compared with single home operators, head office overheads appear to be a source of significant diseconomies of scale, typically absorbing about 7 % of gross revenue. According to this survey (Laing & Buisson, 1996), overheads as a proportion of revenue will fall below 5% as the scale of operation becomes larger. Recently in the UK, Laing (1997) indicated that corporate providers are beginning to increase as they have in America, especially in the nursing home market where the average facility is larger than those providing residential care. There are 25 for-profit and not-for-profit companies and groups with over 1,000 beds (Laing, 1997). It is argued that nursing homes are becoming increasingly professional and organized, and nursing homes owned by companies are set to achieve dominance of the market by the end of the decade (Nazarko, 1995).

2.3.5 Public policies/ Ideologies

According to Jamieson (1991), there are three different 'ideal types' of state/family responsibility balance in long term care. Firstly, the state takes on responsibility for replacing the family, which is no longer expected to provide care for older relatives. Secondly, the state fulfills a residual function, providing care only where there are no families available to do so. Finally, there is the situation in which the role of the state is seen as complementary and supportive so that their burden does not become so enormous that they totally relinquish their role (Jamieson, 1991). A clear policy in European Union Countries is on enabling people to remain at home for as long as possible (Jamieson, 1991). In the UK, the government believes in a mixed economy and has demonstrated this by the promotion of the private sector. The NHS & Community Care Act 1990 has also highlighted the policy of keeping elderly people at home and emphasized the care responsibilities of the community (Phillips, 1992). These emphases are also regarded as important aims of health policy in Taiwan. It is not only in response to the increasing numbers of elderly people and attempting to control the growth in health and social expenditure, but also the strong family ideology in Taiwan. The government in Taiwan has only 88 years of experience of governing this country after Ching Dynasty and historically has played a residual role in social welfare.

Because the long term care services especially nursing home service in Taiwan are quite a new paradigm, the government of Taiwan has regarded the nursing home service as an important part in long term care resources. The 15-year long term care plan sets several aims about the development of nursing home services which include subsidizing the establishment of nursing home in every county and attempting the total integration and collaboration between long term care and acute care resources. Discharge plans, case management and needs assessment, are all critical issues in the plan.

It is likely that the government's policy will dramatically influence the long-term care market and the system. Evidence in the UK, for example, showed that the Conservative government believed in 'a mixed economy of welfare', so withdrew some state intervention and promoted the private sector of the market (Phillips, 1992). According to Liu (1994), policy variables, such as those governing eligibility,

reimbursement, and bed supply, can affect the timing of nursing home admissions. Moreover, not only the policies, but also the administrative processes associated with the policies, affect the timing of nursing home admissions. Finally, related to an earlier point, policies governing acute care services can also affect the use of long-term care services, as well as the duration of their use. It becomes important, therefore, to consider such policies in the analysis of long-term care service use (Liu, 1994).

2.3.6 Finance/Insurance

Financial problems can never be separated from politics and public policies. This may help partially explain why the government's policy of UK was community care oriented. It is difficult to match resources to needs in community-based care but much easier to provide basic cover in residential institutions. However, previous research showed that the total costs of community care, including living expenses, were generally less than the cost of nursing home care (Tennstedt et al., 1996). The cost that people at high risk of admission to institutions received in community services was also less than those in residential care, although those at high risk in the community were far more numerous (Davies and Challis, 1986).

In the United States, the system of long term care is the result of a complex mix between the market, federal government and state and local initiatives. This particular mix has some curious consequences, including: (Harding and Phillips, 1996)

1). Long term care is simply not affordable for the vast majority of people;

2). The market does not seem to have done much to enhance choice;

3). The market clearly does not meet important social goals.

Perhaps markets are the wrong model altogether when thinking about how best to ensure that people who need it get the long term support they want. Financial interests though play a substantial role in deciding who gets access to nursing home care. In the USA, effectively, the patients who get most readily admitted are those who bring with them the highest remuneration, regardless of their priority in terms of needs (Harding and Phillips, 1996).

Research all over the world has shown that few elderly people can afford their long term care expenses for a long time. Pawlson (1989) indicated that very few individuals could save enough during their lifetimes to pay for the long term care expenses, and most who saved would die without using the savings. In the United States, Weiner reported that financing long term care can be accomplished through three basic approaches: (Weiner, 1994)

1) private approach, e.g. personal savings or through the purchase of private insurance;
2) public approach, this assumes that long term care costs should be borne by the public sector; a taxpayer-supported public program would cover all costs through social insurance;
3) mixed public-private approach: this assumes that the costs of long term care should be shared by the public and private sector.

Weiner in his research concluded that long term care insurance would be affordable for 19% of American aged 55 major to 79 years, and between 6% and 21% of the people aged 65 years or older.

In the UK, an estimated 28% of care home residents are self payers (27% in nursing homes and 29% in residential homes). Few elderly people can personally finance residential or nursing care from ordinary income alone, but increasing numbers are able to pay from assets. Liquidation of owner occupied property assets is probably the major source of privately paid care home fees (Laing and Buisson, 1996).

In terms of the UK government's proposals for old age, A New Partnership for Care in Old Age was published in May, 1996. It contains proposals to encourage people to provide their own long term care needs and protect their assets. This green paper proposals cover three types of financial product, including indemnity insurance, for people at or close to retirement age; immediate needs annuities, for people already receiving long term care, or close to doing so; and flexible pension provision, for people of working age or on the point of retirement. The 'partnership' concept, which applies to the first two approaches, involves giving extra protection from means testing by taking out a partnership insurance policy or annuity (Laing and Buisson, 1996). Of course, the eventual emergence of new partnership products--envisaged for 1997--would also depend on the ability of the Conservative

government to survive long enough to place the legislation required on the statute book. Then, the Labour government promised a Royal Commission to work out a fair system of funding long term care for elderly people and to come up with recommendations within 12 months. This was duly set up, the recommendations on funding care given by the Royal Commission Report (1999) include: (pp. xx)

- The Government should ascertain precisely how much money goes to supporting older people in residential settings and in people's homes.
- The value of elderly people's homes should be disregarded for up to three months after admission to care in a residential setting and the opportunity for rehabilitation should be included as an integral and initial part of any care assessment before any decisions on long-term care are taken.
- Measures should be taken to bring about increased efficiency and improved quality in the system including a more client centered approach, a single point of contact, budgets shared between services and stationary bodies, and greater integration of budgets for aids and adaptations.
- Changes to the current system include changing the limits of means-test or making nursing care free.
- The resources which underpin the Residential Allowance in Income Support should be transferred to Local Authorities.
- The Government should consider whether "preserved rights" payments in social security should continue or whether some other solution can be found.
- The Government's proposals on pooled budgets should be taken further, with pooled budgets being implemented nationally.
- Budgets for aids and adaptations should be included in and accessible from a single budget pool and a scheme should be developed which enable Local Authorities to make loans for aids and adaptations.
- The system for making direct payments should be extended to the over 65s, subject to proper safeguards and monitoring.

In terms of long-term care insurance, the Royal Commission suggested that the private insurance products could help the risk pooling to some extent and recommended that "the Treasury and the FSA urgently begin work designed to bring all private long-term care insurance within the ambit of conduct-of-business regulation at the earliest possible date" (The Royal Commission report, 1999, pp.

53).

The primary goals to finance long term care are to provide financial protection against the potentially catastrophic costs of long term care; to foster cost-effective, quality long term care services matched to clients' need, without regard to financial status; and to define appropriate roles for private and public sources of revenues (Weiner, 1994). He indicated that equitable and feasible financing for long term care should be based on a modified "social insurance" model that spreads the costs through the population base. Another conclusion of a major study by Rivlin and Wiener (1988) was that a social insurance mechanism is needed along with an expansion of the private insurance market. They based this conclusion on projections showing that only a minority of elderly people could afford private long term care insurance. Furthermore, the most realistic federal proposals are those that focus on improving the regulations and incentives for long term care insurance. These proposals are more likely to succeed not because they are inherently superior, but because they do not require large new appropriations of federal funds (McCall et al., 1991).

In Taiwan, financing long term care is also a critical problem. Increasing numbers of unregistered nursing or residential homes are attractive to elderly people because they are less expensive and in the close proximity of elderly people's own home. Whether or not the long term care services will be covered in the National Health Insurance Scheme still remains undecided. Because it will become an infinite financial burden to take care of people from disablement to death, only home visiting care program are covered by the National Health Insurance Scheme at this stage. Business Insurance for elderly people is also encouraged by the government. Two major authorities related to long term care, Department of Health (DOH) and Ministry of Interior (MOI), are still working on how to divide their responsibilities and finance plays a key role in this process.

In conclusion, financing long term care whether from state funds or the public/private insurance schemes is likely to be accompanied by the development of new sites of care (e.g. residential alternatives or day care centers). In turn, finance and insurance schemes will be important factors influencing future supply of long term care and the development of a new system must include more research on and education of providers, patients and families to make the financing system for long

term care service more accessible and workable.

2.3.7 Economic factors

How much public expenditure should be put into health and social care services for elderly people is an important economic factor which will influence the supply of long term care services. Minford (1984) argued that welfare impedes economic growth and wealth creation, especially when the time of economic difficulties comes.

Recession and the search for cheaper care will influence the supply of long term care and the welfare state. The cost implications of population ageing (in terms of pensions, health and social services) is coupled with political worries about the fiscal implications of increased welfare spending (Walker, 1992). As a result of economic pressures, attempts have been made to find cheaper forms of care (Salvage, 1995). In the UK, the recent past has seen a rapid decline in the number of hospital beds, both for general use and for elderly people. The decline of long stay geriatric places seems to have been particularly precipitous, with a loss of 21,500 geriatric beds (a 46 percent decrease of the 46,300 bed in 1985) in England between 1985 and 1998. A similarly rapid decline affected the number of psycho-geriatric beds, which fell by 10,600 (43 percent) between 1991 and 1998 (Impallomeni and Starr, 1995; Laing and Buisson, 1998). Long-stay hospital care is free at the point of delivery and not means tested in the UK. Many of those currently in need of long-stay hospital care cannot get free services because of a limited NHS responsibility for this type of care. Even though the Chancellor raised the threshold at which the state will pay for some of the costs of long-term care residential care from £8,000 to £16,000 (The Financial Times, 29/11/95), the means testing for care in residential, nursing and domestic settings, seems still to encourage both private provision and funding arrangements. In the UK, "community care" is likely to be the central policy aim in the future partly because of the assumption that keeping elderly people at home is cheaper than institutional care. However, the danger is that if the informal care resources do not respond in the future when dramatic social and demographic changes are taking place. For some elderly people, community care may be more expensive and may result in their abuse (Victor, 1991). With the acceptance of a

dependent role, some elderly people may prefer institutional care. Thus, a proportion will always need institutional care despite the development of community care (Hirschfield and Fleishman, 1990).

Demographic change is seen as one of the prime causes of the projected fiscal crisis. Looking at a projected 31.5 percent growth in people over 65 among 1992 to 2021 in the UK, Kohler (1995) estimates an increase in health and care costs of about 34 percent, taking no account of rising standards or expectations. The Royal Commission Report (1999) has also projected that the costs of long-term formal care in the UK (paid for by both individuals and the state) could rise from £11.1billion (1.6% of GDP) in 1995 to £45.3 billion in 2051 (1.9% of GDP). Ever since the 1981 White Paper *Growing Older* there has been a clear assertion that the state cannot afford to meet the full cost of care for elderly people, and an implicit view that individual must contribute to provision for their own old age. Salvage (1995) mentioned especially in times of economic strictures, competing demands on public resources may force down the public expenditure allocation to elderly people and their families. Salvage (1995, p.61) quoted an OECD report's suggestion: "the ageing of populations is likely to increase the demand for pensions, for health care and for other social services catering to the needs of the elderly, while demographic pressures on education systems and other services utilized mainly by the young may decrease" (OECD, 1988, p.27). Another substantial factor may affect the competing demands for resources is unemployment (Salvage, 1995). Salvage (1995) reported that high rates of unemployment and long term unemployment require substantial spending on training, counseling and welfare provision.

Taiwan, in East Asia, has a glorious development in its economics during the past decade. There are however some events such as political one and the recent economical crisis in Asia which, impossible to predict, have considerable potential for affecting the future welfare policy and supply of long term care. The onset of large-scale welfare could make heavy demands on economies of a country.

CHAPTER 3

RESEARCH FRAMEWORK

3.1 INTRODUCTION

The goal of health care is to improve health, which has been defined by the World Health Organization (WHO) as a 'state of complete physical, mental and social well-being' (Allsop, 1995, pp. 116). In the past decade, researchers have shown an increased interest in one way in which it is possible to improve health i.e., by the use of health care services. The study of factors which determine the use of health services appears to stem from a general interest in identifying cultural, social, psychological and economic influences that affect variation in the use of services (Wan and Odell, 1981).

With respect to nursing home care, the risk of entering a nursing home is high. According to Kemper and Murtaugh (1991), almost a third of men and over half of women in the US who turned 65 in 1990 are expected to enter a nursing home at least once before they die. The increasing growth of the elderly population combined with a longer life expectancy will certainly increase the demand for nursing home care in the coming decades (Kane and Kane, 1987). As mentioned in chapter two, there were many important factors deeply influencing and shaping the demand and supply of long-term care. Factors that influence demand include the characteristics of patients (age, gender, marital status...), their preferences, informal care, and finance. Factors which relate to supply aspects, e.g. service availability, balance between the public and private sectors, financial/economic aspects and politics...etc. were discussed in previous chapter. These factors interact with each other and influence the pattern of long term care. They may explain why some elderly people with severe limitations in self-care ability remain in their own home while others, including those with relatively few impairments, become institutionalized.

Given the high costs associated with institutionalization, there has been much interest in understanding the factors related to nursing home admissions and in identifying possible substitutions for such care. **In order to explore the possible factors that influence the demand and supply of nursing home care in Taiwan, this research has approached the topic from two points of view which follow the conceptual framework in some previous research. On the one hand, approaching the topic from both the angle of risk of institutionalization and the decision-making process of elderly people and their families, the factors that affect their utilization of nursing home care (demand) have been explored. On the other hand, approaching the topic from the angle of the owners/proprietors of the registered nursing homes in Taiwan, the provider's view to the nursing home industry has been explored, in order to obtain background information about factors influencing the supply of nursing homes.**

The aim of this study (as stated in Chapter 1) is to explore the main factors that influence demand and supply of nursing home care in order to understand in-depth the utilization pattern of nursing homes. Demand and supply are economic terms and the conceptual framework generalized from demand and supply theory is used to approach the problem in this research. However, the scope and limitation of this demand and supply theory is explained in the next section.

The research framework which guides the study includes the risk of institutionalization, the decision-making process in a family context (demand side) and also the information about registered nursing homes in Taiwan and views of their proprietors (supply side). This is the approach which has been adopted by gerontological researchers in other relevant studies. In order to do this, a review of empirical studies in this field has also been conducted in this chapter.

3.2 GENERAL THEORETICAL BACKGROUND

3.2.1 Theories of ageing

The study of ageing, gerontology, is a multi-disciplinary area and has adapted theories from sociological, psychological and biological perspectives, each focusing on different aspects of social behaviour in the ageing process. While some

perspectives focus on macro-structural conditions in seeking to explain the ageing process, others are more interested in immediate social relations, or the micro-social level of analysis (Passuth and Bengtson, 1988). Major theoretical developments in the sociology of ageing are emerged from different sociological perspectives including structuralism (structural functionalism and the political economy of old age), exchange, symbolic interactionism and ethnomethodology (Bond et al., 1993; Passuth and Bengtson, 1988). Each includes different theoretical perspectives in the sociological of ageing.

Structuralism as a broad approach is based on the assumption that "all our social behaviour, our attitudes and values, are a result of the organization and structure of society in which we live" (Bond et al., 1993, pp. 31). These components of social structure may seen to be in consensus or in conflict with each other (Bond et al., 1993) and therefore, economic and political structures in society are regarded as influencing the distribution of resources and social goods. Both of these perspectives can be usefully labeled 'structuralism' as they both focus on the whole society, the social structure and the relationship of its parts (Cuff et al., 1992).

In the structural functionalism, key concepts include norms, roles, and socialization (Passuth and Bengtson, 1988). Two important theories in a consensus perspective of structural functionalism are: disengagement theory and activity theory.

Disengagement theory was one of the earliest theoretical perspective, which was first expounded by Cumming and Henry (1961). It stated that with increasing age people withdraw voluntarily from society. This theory argues that this process is functional to both society and individual, it enables society to make room for young people. At the same time, elderly people will prepare in advance for the ultimate 'disengagement'---death, a total withdrawal from social life (Passuth and Bengtson, 1988; Bond et al., 1993). It refers to a triple loss for the individual: a loss of roles, a restriction of social contacts and relationship, and a reduced commitment to social mores and values (Victor, 1987) so that eventually they form a sub-culture, distinct from wider society. Although criticisms have been levelled in terms of its relative simplicity, the desirability and inevitability of disengagement in old age, it was the first formal theory that attempted to explain the ageing process and had a profound effect on the field of social gerontology.

Activity theory, in direct contrast to disengagement, argues that successful ageing can be achieved by maintaining into old age the activity patterns and values typical of middle age (Havighurst, 1963). Ageing is conceptualized as "a continuous struggle to remain middle aged" (Victor, 1987, pp. 37). This theory argues that when the relationships, activities or roles of middle age are lost with increasing age, elderly people should replace them with new ones in order to maintain life satisfaction (Bond et al., 1993). The main criticism of this theory comes from its idealistic nature (Bond et al., 1993). The active perspective assumes that the social activity is beneficial and results in greater life satisfaction. It overlooks variations in the meaning of particular activities in the lives of old age. It is also criticized because the effect of social activities on elderly people's life satisfaction which, in addition, depends on economic, political and sociological environment of society for elderly people (Passuth and Bengtson, 1988).

A conflict perspective of structuralism regarded themselves as radical critics of the consensus theorists. In the study of ageing, conflict perspective is represented by the theory of political economy of ageing (Bond et al., 1993). It emphasizes that elderly people are firmly located within the prevailing social and economic structure and focuses on the state and its relation to the economy in a capitalist society to explain the condition of elderly people (Passuth and Bengtson, 1988; Walker, 1981). Therefore, its approach to ageing will "examine the relative social and economic status of different groups of elderly people as well as the relationship between the elderly and younger generation" (Walker, 1981, pp. 73). In the UK, Townsend (1981), Walker (1981) and Phillipson and Walker (1986) had great influences on the study of ageing from the political economy perspective which has formed a central concept of structured or structural dependency. The notion of structured or structural dependency denotes a dependent status which has arisen because of limited access to resources (Bond et al., 1993). It is a consequence of twentieth-century thought and action, and of the management of modern economies and the distribution of power and status in such economies (Townsend, 1981) and sometimes through their dependency further creating attribute (Wilkin, 1987; Bond et al., 1993). Elderly people are discriminated against by economic and social policy and this has been shown to result in continued poverty (Townsend, 1989) because society does not reward past work and therefore does not reward old age. Elderly people being kept

out of 'productive' work and its benefits are thus more dependent as a group upon others (Walker, 1982; Bond et al., 1993).

Symbolic interactionism, as developed by Mead in 1934, emphasizes the dynamic and meaningful process of social interaction (Passuth and Bengtson, 1988). Essential to this perspective is the view that individuals construct realities, or social worlds, by a process of interaction with others (Victor, 1987). At the heart of this approach is the assumption that it is the acquisition of language which distinguishes human conduct from animal reaction (Victor, 1987; Bond et al., 1993). Many of the core ideas characterize the frame of reference known as action theory, which evolved from Weber's idea that sociologists should understand those being studied (Bond et al., 1993). Whereas structuralism emphasized the social structure and broader social systems which exist independently, this approach emphasized 'understanding the individual'. This perspective is essentially a micro-scale approach to the study of ageing because it stresses the need to understand the nature and impact of ageing at the individual level (Victor, 1987).

Exchange theory (Victor, 1987; Passuth and Bengtson, 1988) provides a explanation of why individuals behave as they do in a particular situation. Elderly people decrease their participation in social life because they have less power in encounters with younger people due to less resources (income, education, health) which they possess. Exchange theory adds a new dimension to the study of ageing by focusing on the immediate interactions between elderly people and other age groups. Dowd (1980) interprets interaction between groups or individuals as an attempt to maximize rewards and minimize costs. This theory sees all interactions from a rational point of view. However, it overlooks the quality of exchange relations and the meanings of rewards and costs which are defined and redefined by individuals in ongoing exchange relationship (Passuth and Bengtson, 1988).

Ethnomethodology, driving largely from the phenomenology philosophy of Husserl, attempts to describe "the ultimate foundation of human experience by 'seeing beyond' the particulars of everyday experiences to describe the 'essences' which underpin them" (Bond et al., 1993, pp. 38). This perspective, like symbolic interactionism, emphasized the micro-social processes and has a more serious concern with the use of language and knowledge as constitutive elements in everyday realities. Through 'taken-for-granted assumptions', researchers assume that "others, by and

large, see the world as we do, something which is clearly not always borne out" (Bond et al., 1993, pp. 39). Therefore, they are concerned with how members of a social group perceive, define and classify the ways in which they actually perform their activities in every day life. In this theory, researchers present evidence from a variety of ethnographic descriptions depicting the contextual and constructed features of life satisfaction among elderly people. They overlooked the structural features of social life (Passuth and Bengtson, 1988).

No single theory explains all social phenomena. The efforts on the study of ageing have been concerned with the interaction of biological, social and psychological process and this has suggested to some desirability of developing a comprehensive, multi-perspective theory of ageing.

3.2.2 Demand and supply

In chapter two, the factors that influence demand and supply of long-term care were explored by reviewing previous research. The overriding impression from the research evidence is that many factors are involved when decisions are being made about demand and supply of long term care. However, demand and supply are both economic terms and, as stated above, this is a challenge because they have limits. Why the theory of demand and supply have been used here and their limits will now be explored.

Economics is about allocating scarce resources to competing ends and to maximize the outcome of the use of any set of resources (Wright, 1990). The definitions of demand and supply have been stated in chapter two. In a market, demand (the behaviour of buyers) and supply (the behaviour of sellers) interacts (this is called market forces) and this establishes the market price for any product. As mentioned in chapter two, perhaps a more comprehensive definition of demand is: "individual demand is the quantity of a commodity that an individual is willing and able to buy during a given time period ... the market demand for a product is the sum of the demands of the individual consumers in the relevant market" (Hardwick, P. et al, 1994).

The market system is notably "the relationship between social objectives and methods of resource allocation" (Le Grand, et al., 1992, pp.7). There are two

competing objectives in this process: one concerned with efficiency, which is the maximization of outcome or the minimization of costs, the other with equity, which is concerned with how the outcomes and costs are distributed among different sectors of society (Wright, 1990; Le Grand, et al., 1992).

In terms of the health and social care sectors, the achievement of efficiency and equity are the two principle objectives concerned in social welfare (Le Grand, et al., 1992). Efficiency refers to the provision of the quantities of housing, hospitals, nursing homes/residential homes, and so on that yield the greatest level of aggregate (net) benefit to the community. Equity issues are concerned with the justice or fairness of the way that these goods and services are distributed between different members of society. However, there will be also some other objectives that a society wishes to pursue, for instance, the preservation of individual freedoms, the promotion of consumer choice and the fostering of a sense of community (Le Grand, et al., 1992).

Economists indicate that the function of a market system is to get the output at an equilibrium, i.e., an efficient level of output. Factors that influence the demand and supply curve will achieve an efficient level of output. This is achieved by the supposedly uncoordinated, individual actions of a vast number of customers and producers, each acting in response to price 'signals'. The system is automatic. As Adam Smith, the father of modern economics, said: there is 'an invisible hand' at work (cited in Le Grand, 1992, pp.29). Therefore, the market structure is considered by the economists to fulfill the objectives. If they do not, it will be a case of market failure and some other system may be substituted.

However, according to Le Grand et al. (1992), there are certain criteria required for a free market. These include: consumers are well informed; individuals are rational; the marginal private benefit (costs) equals the marginal social benefit (costs); and there are no monopolistic elements or barriers to competition in the relevant markets. In the market for health and social care, these conditions are not necessarily matched. That is, in health and social care, market allocation is unlikely to result in an efficient level of provision (Le Grand et al., 1992). Long-term care is a hybrid of the health and social care. The special characteristics of social care such as "product complexity" which has to do with the intrinsic nature of social care as an economic good; and "consumer complexity" which has to do with the huge variety and the intricacies of people's needs and demand for social care mentioned by Baldock (1997,

pp.84) also support the point that market allocation in long-term care is extraordinary difficult to be efficient.

Equity is another important objective. There is agreement amongst most people that a health care system should be fair and equitable. However, there is much less agreement about the appropriate definition of fairness or equity (Le Grand et al., 1992). In a market system, it is unlikely that this will be achieved. For example, Le Grand et al. (1992) mentioned that in the case of income distribution. Baldock (1997) also highlighted that the equity is difficult to achieve because the exist of horizontal inefficiency---not all who need it getting help and vertical inefficiency---not all those who do get services need them.

In summary, market allocation without government intervention is unlikely to achieve either efficiency or equity completely and may fail to meet certain other objectives as well. Market failures do exist due to a variety of reasons. Given the likelihood that a market system will be able only partially to meet the objectives set for it, governments may intervene through provision, regulation and/or taxes/subsidies. Each can be seen as a response to the various failures of the market. Thus, state provision is a mean of dealing with the problem of monopoly; regulation, with the problem of imperfect consumer information; subsidies, with uncertainty of demand and externalities in an attempt to meet these aims more fully (Le Grand et al., 1992; Le Grand and Bartlett, 1993).

Regarding choice, the choice of an appropriate system depends upon whether it is believed that people have the ability to decide for themselves which services will yield them the greatest benefits. Traditionally, it has been held that people need very specialized knowledge to make choices about health and social care and that an appropriate professional is the best agent to aid people with their decision making.

While this may be true for specialized diagnosis and treatment of disease and trauma, it may not hold for choices about domiciliary care or a full-time stay in a residential home or nursing home. According to Le Grand et al.(1992), the nursing home sector is different from the hospital sector in several ways:

1) The role of the physician is weaker

2) The influence of for-profit providers is greater

3) The importance of malpractice as a constraint on quality is small.

That means, that the factors that influence supply and demand, may be of greater influence here than in the hospital sector. The point has to be made that unless people are suffering from severe mental infirmity they or their families may well be able to buy in their own social care services provided that they have an adequate income. However, the choice to stay at home or enter an institution depends on some other factors which the elderly people's real choice may be hindered. These include factors to do with supply such as the availability of service resources in the community and also the lack of information on which to base a choice of one home or another. "Some knowledge can only be acquired after entry" seems to be characteristic of a care rather than market goods which can be compared and chosen in a supermarket (Phillips, 1992, pp. 38). Therefore, choice for certain types of care is in reality restricted to a few people (Phillips, 1992).

In Taiwan, the characteristics which existed in the health and social care system also need to be considered. Traditional fee-for-service reimbursement policy for acute care has kept the system more competitive on the supply side. In terms of long-term care, the establishment of long-term care institutions as well as community care has been encouraged by the government. However, governmental influences upon nursing home care still remain minimum at this stage. The possible factors that influence demand, thus, mainly come from consumers themselves, given the bed availability and nursing home price on the supply side. That is, more consumers' demand rather than the professionals or the government had been reflected. At this stage, private payers appear to be the main determinants in the demand for nursing home service in Taiwan. However, given the high cost of nursing home care, few disabled people can afford an extended stay based on their own resources. Third party payments from MOI provide support for disabled elderly people aged 65 and over only for low income families. In addition, few elderly people in Taiwan have their care paid for by private insurance.

As indicated earlier, data limitations and the market's complexity have confounded researchers' attempts to estimate demand parameters. In this study, the research was not designed to set up the demand equation but explore the possible determinants influencing the demand for nursing home care, through the presentation of a high-risk profile of the nursing home patients.

Furthermore, the probability of a person using nursing home care can be expressed as the product of two probabilities: the probability that the person demands nursing home care and, given demand, the probability of finding an available bed (Scanlon, 1980). While the usage of nursing homes is clear from the statistics (risk of institutionalization), what is more difficult to find out is why consumers demand such care and home proprietors respond to this. It is to fill this gap that this study has collected information through the interviews with elderly people and their families about the decision making process (demand) and has investigated the supply side by interviewing the nursing home proprietors.

In Taiwan, long-term care is at an initial stage of development. The prerequisite of setting up enough suppliers in the health care market to encourage competition on the supply side was a newly launched three-year long-term care plan (from 1998 to 2001). Under this, the government plans to become involved especially in the decision-making process to place elderly people who need long-term care. The concept of a single entry point (SEP) has started as a trial in one of the district health authorities in Taipei capital (DOH, 1998). It is thought that joint commissioning of multi-disciplinary teams and care managers will be in place soon.

Therefore, there is need to understand why elderly people and their families demand long-term care services and how they make their decisions. This interaction of possible factors that influence demand and supply of long-term care, especially the demand for nursing home care is the main concern of this study.

The theoretical background of demand and supply which is used here has been used as a conceptual framework in previous research (e.g. Warburton, 1994; Salvage, 1995) in order to explore the factors influencing the utilization of long-term care. In Taiwan, there were also several research studies on factors which influence the demand for long-term care (e.g. Wu, S. L. et al., 1991; 1992; Hurng, 1993; Wu, S. C. et al., 1994). In this study, due to the limited number of registered nursing homes in the market when the survey was conducted, it was only possible to interview a small number of nursing home proprietors. Therefore, this research has focused primarily on the demand side of nursing home care. This focus has been on the characteristics of the patients in registered nursing homes and their family members in the decision making process.

3.3 THE DEMAND SIDE FOR NURSING HOME CARE IN TAIWAN

Factors associated with institutionalization have been the subject of well-designed research over the past two decades worldwide. The majority of studies examining factors influencing the institutionalization of elderly people have treated placement as an outcome or product variable. These research studies can generally be categorized into two groups: those studies comparing selected *characteristics* of the institutionalized elderly with either the general elderly population or elderly people living in the community (Kane and Matthias, 1984; Jette et al.,1992; Wierik et al., 1992; Wu, 1993; Warburton, 1994); and those studies examining factors associated with the *family placement* of an aged relative in an institution either at the point of, or after admission (Kraus et al, 1976; Gonyea, J. G., 1987; Brandriet, 1991; McFall and Miller, 1992; Kane, 1995; Bell, J., 1996). McFall and Miller (1992) indicated that studies of risk of institutionalization balance the weaknesses of studies of family decision-making because they are based on larger and sometimes more geographically representative populations.

On the demand side, this research focuses on the elderly people and their families who had chosen the nursing home as an outcome placement. That is, the focus is on those who expressed their need for nursing home care. The reasons for the nursing home entry were examined. This approach is in contrast to some previous research which had focused much more on attitudes (McAuley and Blieszner, 1985; Wu, 1995). Because only 1% of elderly people aged 65 and over currently live in an institution in Taiwan and because few knew much about nursing homes, the actual experience of those who are living there is invaluable.

Most of these studies focus on the final point or outcome of the institutional decision-making process. Yet the clinical gerontological literature documents that the placement of an older person in an institution is not a brief or simple process (Gonyea, 1987). Families usually undertake a series of attempts to resolve the older person's problems prior to institutionalization. The nursing home is viewed as a last resort by both the elderly people and their families. The fact that admission to a nursing home comes at the end of a long series of disappointments negatively affects both the older individual and the family (Fox and Lithwick, 1978; Gonyea, 1987; Rodgers, 1997).

Gonyea (1987) argues that it is too late to introduce any alternative interventions once the family seeks to admit their elderly relative to institution. So she examined the factors that influence a family's propensity to consider institutionalization of an older person before the family actually sought this placement.

In Taiwan, Wu (1995) investigated public attitudes toward three long-term care arrangements as well as the factors associated with those attitudes. Data came from a survey of a 1,556 nation-wide sample aged 20-64. Her research revealed that 58% of the respondents stated that they would choose home-based care to assist families with a dependent elderly relative while 32% of the respondents preferred community-based care and only 10% institutional care. However, this study was carried out four years ago when community care in Taiwan was rarely formulated and definitions were perhaps less clear cut. The difference between home-based care and community care could mean the same thing---living in people's own homes from the respondents' points of view. As stated by Meredith (1995), community care means helping people to live the life of their choice, given their particular illness or disabilities, and preferably in their own homes. It depends on each person's need and involve information, domestic assistance, physical and or nursing care, appropriate housing, access to transport and practical support including emotional and financial ones. Although the actual use of services may be similar to the attitudes expressed, long term care is a brand new concept for elderly people and their families in Taiwan. It has been in existence for less than 5 years, and previously most of the institutions offered by the Ministry of Interior (MOI) were only available for citizens with low income standards or veterans. The researcher finds it suspicious that the differences between home-based care and community care could be detected under the circumstances of vague definition and information about long term care. According to Lin et al. (1996), over 70% of the elderly people aged 64 and over in Taiwan were not familiar with the government's social welfare services and did not know where to get the information. Investigating the family decision-making process from elderly people currently in a nursing home and their families was thought to be a better way to explore the factors influencing institutionalization at this stage in Taiwan rather than asking families to imagine what would be their choice before they fully understood what a nursing home is. This point of view was also evident in Rodgers' (1997) study in which he found that lack of preparation by families is the experience when placing elder adults in a

nursing home. This includes lack of prior consideration about long-term care needs, even when such needs might have been shown by the progressive decline of the elderly person (Rodgers, 1997). Elderly people currently in nursing homes represent a group of people whose needs have been expressed by actual actions/behaviors (e.g. so-called "demand", see Chapter 2). Although data on attitudes could be used as an important source of information in the estimation of future demand for long-term care services, examining the reasons for their actual socio-behaviors in demanding nursing home services could be more helpful when looking at the risk of institutionalization and families' decision-making process. This study aims to look at the situation where choices have been made. It is the first systematic investigation of the nature of the nursing homes, proprietors and their users in Taiwan. It could be the starting point in obtaining knowledge about nursing homes and, it is hoped, will be beneficial for policy makers and medical professionals in launching new policies.

3.3.1 Demand and risk of institutionalization---Using Andersen's behaviour model for evaluating the risk and utilization of long-term care (nursing home) facilities

3.3.1.1 Risk of institutionalization

The risk associated with all forms of institutional care have been well documented. Substantial studies have been devoted to understand factors related to nursing home use in order to explain who will be the high risk population group (Greenberg and Ginn, 1979; Vincente et al., 1979; Branch and Jette, 1982; Kane and Matthias, 1984; Cohen, M. A. et al., 1986, 1988; Nocks et al., 1986; Morris et al., 1988; Shapiro and Tate, 1988; Greene and Ondrich, 1990; Jette et al., 1992; Wierik et al., 1992; Boaz and Muller, 1994; Scott et al., 1997; Woo et al., 1994; Wu et al., 1996/1997). Findings from previous research make it clear that the risk of an older person's using a nursing home is complex and involves a broad range of predisposing, enabling and need factors (please see 3.3.1.2 Andersen's model). For example, Wierik et al. (1992) investigated factors which contribute to the utilization of nursing homes and/or homes for the aged among 248 elderly people. They found that in addition to functional status, the informal care index, household composition, number of visits

received and use of professional home care were important discriminating characteristics. Apart from their greater need, the nursing home applicants, especially those living at home, had a well-functioning social network and commonly received help from professional care-givers, whereas the applicants to homes for the aged were much worse off in these respects. The findings imply that alternatives to institutional care will be more successful for applicants to homes for the aged than for nursing home applicants. For nursing home applicants, their high care needs, despite their well-functioning social network and use of professional home care, appear to make entry to nursing home almost inevitable.

Cohen, M. A. et al. (1986) who focused their research on the characteristics of nursing home entrants rather than residents in the US found that nine variables emerged as statistically significant predictors for nursing home entry. They are age, being confined to bed, requiring help to get around, requiring aid getting around, being widowed, never married, welfare as a payment source, insurance as a payment source and perceived health status.

Nocks et al. (1986) found that treatment group status (the data being from a randomized community care demonstration study), impairment in activities of daily living (ADL) and in instrumental activities of daily living (IADL), living alone, hospital residence at the beginning of the study, and whether the person subsequently died within 60 days of the enrollment, all significantly predicted whether the individual entered a nursing home within a 18-month period of participation and the total nursing home days.

Kane and Matthias (1984) found that in predicting risk of nursing home admission from a hospital setting, using 1979-1980 data from West Los Angeles over a 12-month study period, several variables were significantly associated with high risk: mental impairment, gender (women were at greater risk), being older, race, and various admission diagnoses and hospital treatment categories (e.g., orthopedic surgery). In terms of the medical diagnosis, certain chronic diseases such as cardiovascular disease and skeletal muscular diseases appear to have a high prevalence among older adults in general and were reported to account for approximately 85% of all morbidity reported in the long-term care studies (Manton, 1989).

In the literature, researchers have attempted to define characteristics of people entering nursing homes. These results of studies differ substantially in some respects because of several reasons, for example, different population from which their data were drawn; lack of controlled comparison; whether the comparative group was targeted by different reasons or simply because their relative importance differed among areas (Kane and Matthias, 1984). However, they still exhibit common features. Factors cited most often in related research include advanced age, gender, marital status, living alone, physical disability, mental impairment, income, social support and the presence of specific medical conditions. These findings of previous research are summarized by the author in Table 3-1* on the basis of Andersen's model (Andersen et al., 1975).

3.3.1.2 The strengths and weaknesses of Andersen's model

3.3.1.2.1 Definition

Andersen's model is a behavioral one of the use of services and was developed by Andersen et al. in US, 1970s. It incorporates a range of variables. Although the model was originally developed to gain insight into the utilization of medical services, it has been used by others to explain the utilization of health and social services by elderly people (Branch et al., 1981; Wan and Odell, 1981; Coulton and Frost, 1982; Evashwick, et al., 1984; Wierik, et al., 1992). The model suggests that the use of services depends on (1) personal attributes which may predispose the individuals to use services (predisposing variables); (2) their ability to secure services (enabling variables) such as financial capability to pay for care, ability to get to places where services are offered, and knowledge about the services and (3) their need for services (need variables) as evidenced by illness (Anderson et al., 1975, 1978). The predisposing component comprises individual characteristics which exist prior to the onset of specific episodes of illness. These characteristics include demographic, social-structural and attitudinal-belief variables. The enabling component comprises those conditions which permit an individual to act in accordance with his or her values or satisfy a felt need regarding health service use. They include financial means, the nature and accessibility of health care, as well as characteristics of community or

region. The need component includes various aspects of health. The model implies that the predisposition to using professional services (predisposing factors) is translated into actual use if the possibilities to do so (enabling factors) are present. The (subject) need to use professional care (need factors) is also the premise required (Evashwick, et al., 1984; Wierik, et al., 1992). The model allows for a variety of characteristics with different impact in time on the utilization of services (Wierik, et al., 1992). As Wan and Odell pointed out, predisposing factors may influence enabling factors and both may affect need for care as well as utilization (Wan and Odell, 1981).

3.3.1.2.2 <u>The strengths and weaknesses</u>

Although Andersen's model is fairly clear regarding the supposed impact of the variables on the use of services, it is hard to interpret the results of the previous studies on utilization of nursing homes in a conceptual way. Some of the strengths and weaknesses of this model are as follows:

strengths:

This model which was developed in the 1970s systematically covers different levels of variables which are clear regarding the supposed impacts on the use of services. Most of the factors were found to be associated with nursing home entry/utilization or institutionalization in previous research (Wierik, et al, 1992). Andersen's model has been widely used in related studies since then.

weaknesses:

I. The application of a utilization model such as Andersen's is not simple; it does not produce clear-cut predictions of the use of services by the population (Evashwick, et al, 1984). For example, Wolinsky (1978) criticized the Andersen model as a framework for research in health service utilization. He argued that the predisposing, enabling characteristics were found to be unrelated to health service utilization in his research and most of the explained variances are attributable to the illness-morbidity (need) characteristics. He suggested that the variables that have gone unmeasured in the model (such as attitudes, values and delivery-system characteristics) are the real causes of health service utilization.

II. Because Andersen's model was developed in the 1970s' in the USA and used as predicting health service utilization, it is not up to date and was not originally

designed for social services. Wan and Odell (1981) indicated that differences exist in predictors of health services in the Andersen model depending upon whether services are discretionary (directed toward conditions for which immediate care is not required) or non-discretionary (conditions for which immediate care is required, i.e. physician services, hospitalization). Enabling factors have more influence on social services, while need characteristics are evidenced as the most important predictor of the use of physicians and hospitalization. They reported that users of social services tended to be people with comparatively good psychological functioning and good ability to perform instrumental activities. Social service users were also significantly more likely to live alone. Users of health services were characterized as having a disability condition, were more likely to be widowed and in the case of physician services were more apt to live alone.

III. It is hard to develop a conceptual interpretation of the results of the previous studies on utilization of nursing homes or institutional care. Because: 1) a direct comparison of the results of these studies is not feasible, since the research design, the length of follow-up, the care settings, the study population, the time studied, the variables included in the studies and the health care system (the local background, for example, policy, health program and financing and health resources etc.) have differed greatly; 2) probably as a consequence of this, the results of the studies are divergent for specific factors. The overview of the literature shows that the various need characteristics have been found most consistently to contribute to the utilization of institutional care. The findings on enabling characteristics are the least consistent. Among the predisposing characteristics, the findings regarding age, marital status, mental status and household composition are again consistent. This may be due to the fact that they are too closely related (for instance household composition and marital status) or they were simply not included (Wierik, et al, 1992).

Branch and Jette (1982) also explained in their study the potential reasons for the discrepancy of their results from others. First, there are major differences in the type of samples studied; second, the nature of the comparisons made also differs across the studies (e.g. some studies compare applicants with non-applicants, others compared residents of institutions with community-based elderly people); furthermore, most of the investigations by cross-sectional design are not able to

discriminate the effects of factors that may influence the decision to enter a LTC institution from other factors such as the act of moving, the impact of institutionalization itself or other unknown factors.

Although critics exist, this Anderson model is regarded as useful to help relevant studies systematically analyze the possible risk factors of institutionalization in the population. In this research, this model is used as a guideline to explore the risk factors of institutionalization. Meanwhile, family network and supply aspects of this issue are also investigated to compensate for the weaknesses of Andersen's model. Only after the possible risk factors have been thoroughly explored, will predicting the amount of services that will be demanded make sense.

3.3.1.3 Previous research and unanswered questions about this issue in Taiwan

Life expectancy has extended partly because of the progressive medical advancements but also because of other factors such as the improvements in living conditions. Good long-term care for the elderly people is needed. This includes both care in the community and institutional care. Primary goals in elderly care are to help them effectively restore (where possible) and maintain physical functions and achieve self-sufficiency and independence and also increase their confidence.

Because of the short history of nursing homes in Taiwan, research on it and on other forms of institutional care are relatively rare. For example, Wu et al. (1997) focused on the influence of intergenerational exchange among 317 nursing home resident and also found that ethnicity (mainlanders), living alone, higher family income and physical disability were associated with nursing home admission in Taiwan. One study (Shieh et al., 1995a) investigated dependency among 303 elderly people aged 65 and over in a community in Taipei, Taiwan. They found that (1) most of the interviewees lived on an occupational pension (51.2%) but 32.0% depended financially on their children's support; (2) On scales developed by Hasegawa, 68.3% were of marginal type; 17.2% were normal; 13.9% were in a pre-dementia stage; 0.6% were demented. (3) in another 15-question scale, 32.3% were depressed. This research showed that the older the person the more likely they were to suffer from pre-dementia and dementia. Other results showed that most of the interviewees can manage their daily living activities. However for cooking, 50.8% could manage but

40.8% totally depended on others. In the case of family care, 92.3% of the frail elderly people received a high level of the family care.

According to the data in the 1991 Taiwan Area Elderly Survey (the Directorate-General of Budget, Accounting and Statistics, Executive Yuan, 1993), there were 7,000 elderly people aged 65 and over who would consider moving into an institution for elderly people as an ideal residential condition. This is approximately triple the actual capacity of the Taipei City Elderly Institutions, elucidating insufficient elderly nursing capacity in Taiwan. Another study focused on 50 registered residential institutions for elderly people in Taiwan. It showed that: (1) 32% of these registered institutions were in the public sector, 68.0% were private. (2) The age of the residents , 10.2% were between 64-69; 38.8% were between 70-74; 44.9% were between 75-79 and 6.1% were aged 80 and over. (3) In the residential institutions, 88.0% of them had more than two qualified nurses. An average less than 10 residents had a physical disease in each institute (Shieh, et al., 1995b).

Lee et al. (1990) undertook research on the 20 residential homes among three administrative districts in Taipei City. They found that most of the residential homes were unregistered and half of their residents were stroke patients. They were taken care of by untrained care assistants and did not receive an adequate quality of care. Hu et al. (1996) also found that in the community, more than two thirds (63.4%) of the frail elderly people were stroke patients. Among them, those confused and bed-ridden were in greater need of institutional care ($p<0.001$) than those taken care of at home.

Yang et al. (1995) focused on 142 self-funding residents in 4 residential homes and found that the average age of the sample population was 77.4 years; most of them were mainlanders (88.7%); Half of them were widowed and 75% of them had children. Most of them lived alone before moving into the institution and the main reasons for moving into residential home were as follows: 38.7% were because their children lived far from them and could not take care of them; 23.9% had no children and 21.8% of the residents did not want to live with their children. Another 15.5% of the residents claimed that it was a peaceful place to live and did not want to undertake family chores any more. This research showed that the reasons why the residents wanted residential home care included keeping a joyful mind, preventing accidents, having medical insurance, having stable economic resources, wanting self respect and to be respected by others. Residential homes provided the elderly people with privacy

and an open environment to develop a social life. These institutions also played an important role in providing the elderly people with a proper diet, but somehow, self-respect and emotional demands were not fulfilled (Yang et al., 1995).

In the UK, changes in the administration of social security benefits in the 1980s effectively increased the availability of state financed, non-statutory residential and nursing home care (Grundy and Glaser, 1997). Private residential and nursing homes have been increasing their share of the total institutional provision, while the number of geriatric beds has fallen slightly and statutory residential places have barely increased (Day, P. & Klein, R., 1987). It is, therefore, important to assess the interaction of the different forms of care available to elderly people, and to determine the levels of disability and dependency being coped with in these ways. This information is a necessary part of any evaluation of the present structure of institutional care for the elderly, and would assist in the planning of future provision.

In Taiwan, residential and nursing homes established by the private sectors are encouraged as well as the public sectors. It is important to understand the demand for these new nursing homes in Taiwan by presenting a profile of them. This includes who is there? Why do they need nursing home care? What are the risk factors of nursing home admissions? These issues need to be considered before developing the different forms of care available to elderly people. In Taiwan, although some research has focused on risk of institutionalization, issues focusing on the demand for nursing home entry have not been studied. Approaching from an epidemiological point of view is an attempt to explore the factors influencing the demand of nursing home care.

3.3.2 An exploration of the family decision-making process by the patients and their carers/key families in nursing homes in Taiwan

3.3.2.1 The decision-making process in a family context

In terms of the factors influencing the demand for nursing home care, the literature reveals that not only the characteristics of elderly people but also the decision-making process leading to allocation and admission are important in an understanding of how and why people enter nursing homes. Dellasega and Mastrian (1995) defined "decision making" as "considering alternatives and making choices

that led to the admission of an elder to a nursing facility" (pp. 126). The family is particularly relevant to a discussion of nursing home admission, since numerous studies have demonstrated the critical role of family members in providing care, co-residential arrangements and social, financial exchanges for elderly relatives (Stone et al., 1987; Soldo et al., 1989; Boaz and Muller, 1994; McCullough and Wilson, 1995; Freedman, 1996; Wu et al., 1997) and the importance of familial activities in reducing an older person's risk of admission (Newman and Struyk, 1990; Dellasega, 1991; Freedman et al., 1994; Freedman, 1996; Cox, 1996; see also Table 3-1). For example, longitudinal studies of nursing home admission have shown that having a spouse greatly reduces an older person's risk of nursing home entry (Freedman et al., 1994; Freedman, 1996). Freedman (1996) has shown that in the USA, married old people have about half the risk of nursing home admission as unmarried people, and that having at least one daughter reduces an older person's chances of admission by about one-fifth (Freedman, 1996).

Previous research showed that the presence of a strong family network is often a deterrent to institutionalization (Mittelman et al., 1996; Doty, 1986). Across ethnic and racial groups throughout the world, decisions about many aspects of an older adult's life are made within the family context (High, 1988). When a family network does exist the decision to institutionalize a vulnerable older person is often a "family" process (Lieberman, 1978; Greenberg, 1993; Lieberman and Fisher, 1999). Family members are actors of considerable importance in the decision to institutionalize an older dependent relative (Johnson et al., 1994; Nolan, et al., 1996) and in many cases, families were placed in a "no win" situation (Nolan, et al., 1996).

Wiseman and Roseman (1979) have established three main typologies about the moves of elderly people. Firstly, relatively abrupt events occur that trigger the decision to move. With respect to moves to a long-term care facility, previous research has also indicated that the triggers may have to do with the health or functioning of the older person or the continuing ability of kin to provide care (Arling and McAuley, 1983; Gonyea, 1987; McAuley and Travis, 1997). In addition, in the process of searching for a suitable destination, these "push" factors, such as a decline in function, may influence who takes prominence in the process (McAuley and Travis, 1997). Secondly, moves related to chronic disability, especially institutional moves, tend to be involuntary. Thus, the elderly people themselves seldom get involved in the

decision-making process for institutionalization. Finally, there is the potential importance of health care professionals, especially the physician, in the decision-making process.

Litwak and Longino (1987) show that basic types of residential mobility may occur in old age. One of them is to relocate to be close to families, especially children, when the ability to perform instrumental and basic activities of daily living declines. Kin are frequently the only adequate source of home-based care for moderately impaired elders living in the community. Admission to an institution occurs when functioning declines to the point that the family is no longer able to provide all of the care required. However, nursing home moves are generally local moves, because the family continues to provide certain form of help (McAuley and Travis, 1997).

As mentioned above, the decision-making process to institutionalize frail older people usually involves the frail elderly person (the patient) themselves, their primary carers, their families and medical/social professionals. The purpose of this study is to understand and document the process by which this decision occurred and to examine what were the practical events and factors which influenced the placement of elderly people in a nursing home in Taiwan. Although studies of the process of family decision-making about nursing home placements tend to be small and based on a narrow range of patient problems, they provide useful insights into the complex process of deciding to institutionalize a frail older person.

3.3.2.2 The patients

Transition to the care and environment of a nursing home is a life event that challenges elderly people. There are a number of reasons why older individuals and their families choose the home-health-care options rather than institutional care. Salamon and Rosenthal (1990) suggested some of them: fear of institutionalization, familiar surroundings at home, costs, continuity of generations, reciprocity, and guilt. These form the basis of the decision-making process for many families. While there are also highly individual reasons, some or all of these are usually taken into consideration. Reed et al. (1998) also showed that for elderly people, relocation to another place is a serious matter because of the strong connection between place of residence and sense of self. However, at some point, institutionalization is an

inevitable destination for some frail elderly people. The decision is usually the result of complex interactions which involve the elderly patients, the professionals and most important, family members (Rowles and High, 1996). Allen et al. (1992) argued that it would be one of the most difficult decisions a person may ever have to make. Research shows that admission to a nursing home is often a group decision which is made mainly by the families and the professionals, and less a decision by the older people themselves (Schneider and Kropf, 1996).

Evidence from previous studies shows that the majority of elderly people were ambivalent to be admitted and many of them are reluctant to enter a home (Sinclair, 1986; Neill et al., 1988; Allen et al., 1992; Walker et al., 1993). Decisions are often made at a time when the older person is experiencing confusion, anxiety, or withdrawal (Numerof, 1983) or when s/he is too frail to be an active participant (Nolan et al., 1996). In fact, some previous research suggests that older people generally have little or no involvement in decisions regarding institutionalization (Kraus et al., 1976b; Kane et al., 1990; Sinclair, 1990; Reinardy, 1992; McAuley and Travis, 1997). Nine factors which related to the patients' involvement in decision making have been explored by Coulton et al. (1982). These include level of impairment, information, perceived freedom of choice, time available, degree of hope, family power structure, commonality of family goals, social support and the patient's assertiveness. According to McAuley and Travis (1997), many elderly people were hardly or not at all involved in the decision-making process because their families considered them to be too confused or disorientated. This was particularly the case when an older person's functioning started to decline slowly. Reinardy (1992) reported that although deciding and wanting to move to a nursing home have an impact on well-being following admission, it was found that overall, the majority of people admitted to a nursing home did not perceive themselves as having made the decision. Brandriet (1991) even found that elderly people had no desire to be involved. The majority viewed a nursing home as the only feasible alternative and "Why be involved in a decision if there is nothing to decide?" (pp.78). In general, losing control and feelings of powerlessness were common in the process of their nursing home entry. However, the association between the voluntary move and the subsequent adjustment has been suggested in the literature (Brook, 1991). Involuntary patients often feel they have no personal choices and experience

emotional distress. They are also usually the group of elderly people who use more resources (more nursing and social work time) in the nursing home than did voluntary residents (Brook, 1991).

Those lucid patients who experienced an abrupt change in their ability to look after themselves, for example, because of a hip fracture, were found to be more likely to have an active say (McAuley and Travis, 1997). In general, when individuals were involved in the decision-making process, the result was greater stability and more emotional energy directed at dealing with the problems of move (Brook, 1991). In these cases, it was found that the older person often wanted to be admitted to a nursing home to lessen the burden on carers (McAuley and Travis, 1997). This is also evident from the findings of Allen et al. (1992). They showed that elderly people sometimes turned the admission into an altruistic act by which they had taken the decision for their carer's benefit.

In this research, interviews of lucid patients in nursing homes were undertaken to explore the role of elderly people in the decision-making process. Issues considered were whether the elderly people had choice and control in the care services they received, if they participated in decisions about their care, and to what extent they were satisfied with the nursing home care they received.

3.3.2.3 The families/carers

According to OPCS (1992), carers refer to "adults (16 years and over) with caring responsibilities for sick, handicapped or elderly people" (cited in Phillips, 1996, pp.24). Evandrou (1996) defined 'informal caring' as "additional family responsibilities due to looking after someone who is sick, handicapped or elderly" (pp. 205). She indicated that care can take a variety of forms including physical, practical, personal, social and emotional. Thus the experience of caring varies on different carers and the caring relationship is essentially a dynamic one (Evandrou, 1996). In this research, Andersen's model has been used to assess the decision to use formal care services (Andersen and Newman, 1973). Using this approach, the institutionalization process is governed by a series of factors: predisposing (i.e., age, race, gender); enabling (i.e., family income, education, insurance coverage, assets) and needs (i.e., physical and cognitive functioning), as mentioned above. According to

Bass and Noelker (1987), the characteristics of family carers is also an important dimension and has been added to Andersen's model under enabling factors. Some research also reported that apart from functional status, the availability and competence of informal carers (Tennstedt et al., 1996) and the presence of complicated medical conditions are two other important factors which determine the need for long-term care (Weiner, 1994). Previous research has indicated that informal carers are most often family members, most often spouses and most often women (Brody, 1985; Dellasega, 1991; Grunfeld et al., 1997; Wu and Lin, 1999). The literature also suggests that by caring for an older disabled person in the community, children and spouses can delay institutionalization (Mittelman et al., 1996; Doty, 1986; Johnson and Grant, 1985; Sangl, 1983; Daatland, 1983; Smyer, 1980). Family members may not only influence the decision of institutionalization but even the length of stay (Freedman, 1993). Nolan et al. (1996) have also found that family members exercise a great deal of influence on the process of moving into a home and sometimes strongly influencing the choice of home and its location.

3.3.2.3.1 Carer's role and caregiving burden

As noted above, spouses and children are particularly important in a discussion of long-term care. According to Stone and Kemper (1990), they constitute nearly three-fourths of primary informal carers of their older, disabled relatives. In this context, daughter and wives are more likely than sons and husbands to provide such care (Stone, Cafferata, and Sangl, 1987). In terms of the relationship to the elderly person, Dellasega (1991) found that people caring for their own parent or spouse were least likely to institutionalize them. Another finding is that spouse carers tend to sustain the caregiving role longer than other relatives (Colerick and George, 1986). In the absence of kin, an older person's limitations in function might necessitate more formal care arrangements, either in the community or in an institution (Pruchno, Michaels and Potashnik, 1990; Freedman,1993).

Previous studies suggest that the decision to institutionalize family members is a difficult one and often triggered by crisis (Townsend, 1987; Sinclair, 1990; Allen et al., 1992; Hunter, 1993; Cohen et al., 1993; Dellasega and Mastrian, 1995; Bell, 1996). A study in the USA showed that 68% of relatives of applicants for nursing

home care reported that a decline in the older person's health was the most important reason. A change in the informal support system and a reduced capacity for caregiving was the most important reason reported by 20% of them (Arling and McAuley, 1983). The "excessive burden on family members" and "specific health problems" of the elderly people were reported to be the most frequent reasons (given by the applicants for institutional care or their family members) for application to long-term care institutions (Kraus et al., 1976b). Johnson et al. (1994) also indicated that health-related and care-related issues are the main factors which influence the nursing home placement. These factors combined with lack of a capable family carer and fear of living alone make nursing home placement inevitable. Behaviour problems of the patient that upset family relationships and demand continual supervision can also act as precursors to institutional placement (Diemling and Bass, 1986; Mittelman et al., 1996).

Apart from the older person's health condition, the relevant changes in the social situation of the carers have been broadly defined by previous research. This emphasizes the stress/burden experienced by the primary carers and highlights the important association between carer's burden, everyday impact of providing informal care with the future use of a nursing home (Sinclair, 1990; McFall and Miller, 1992; McKinlay et al., 1995; Jette et al., 1995). For example, a study of carers of Alzheimer's disease patients found that the carer's well-being and need for help is more influential in institutionalization than severity of symptoms or duration of illness (Colerick and George, 1986). Another study of dementia patients reported that forgetful behavior, the use of anti-psychotic medication by the carer, and the quality of relationship with the demented spouse influence desire to institutionalize. The length of time in caregiving also influenced the actual placement in a nursing home (Pruchnow, Michaels, and Potashnik, 1990). Jette et al. (1995) found that elderly people whose primary carers reported personal burden from caregiving were at almost twice the risk of using a nursing home as those whose primary carers did not report personal burden. Smallegan (1985) also showed that changes in the patterns of caregiving, exhaustion of the carers, and the inability of the family to give more care were factors in admission.

The multidimensional nature of caregiving burden has been suggested (Novak and Guest, 1989) and supported by previous research (Given, 1990; Maurin and

Boyd, 1990; Caserta et al., 1996). It is likely that each dimension of burden may correlate with different outcomes. For instance, the level of physical burden may be a source of health-related problems, while on the other hand, the quality of the relationship may be more directly linked to the emotional burden (Caserta et al., 1996). How subjective and objective burdens relate to the use of institutionalization has also been shown (Montgomery et al., 1985). Zarit et al. (1980) looked at the possible factors contributing to feelings of burden of those caring for older people with senile dementia. They found that only the frequency of family visits had a significant effect upon the degree of carer's feeling of burden. In situations where more visits were paid to the impaired older person from family other than the primary carer, the burden was less. It suggested that natural support systems involved other members of the impaired older person will be important to the primary carer to prevent an overwhelming feeling of burden and a withdrawal from the caregiving role. Mittleman et al. (1996) also suggested that carers can benefit from more understanding and support from their families.

As Wilder et al. (1983) indicate, most family burden studies do not sufficiently address the issues of the family decision-making process, nor do they relate the symptomatology and characteristics of the vulnerable elderly in influencing family burden or institutional outcome. A conceptual framework for viewing how the functionally dependent older person with Alzheimer's disease is related to burden the caregiving system was created by Morycz (1985). It provides a methodological tool for related studies. It was divided into three sets of variables: the patient, carer, and environment. First, a number of background characteristics of the elderly patients such as age, marital status, sex, race, family size and composition were more likely to contribute to higher degrees of family burden. Second, carer characteristics can interact with patient characteristics and create resulting strain. For example, a carer with some existing physical illness may experience increased family burden. Background characteristics also may be relevant: carer's sex, race, and relationship to the patient. Also the preexisting negative attitudes toward elderly people may also contribute to the experience of family burden. A third set of variables that interact with both patient and carer characteristics to contribute to the burden of the family are environmental. The physical layout of the carer's or patient's home, availability of safety appliances, adequate space and even issues in the carer's social environment

may be the factors to produce family burden. In the study of Alzheimer's disease patients and their carers by Morycz (1985), it was reported that the desire of a carer to institutionalize a patient was found to be greater when the carer experiences increased strain or burden, when a patient was widowed, when there was more physical labor involved in caregiving tasks, and when the patient lived alone. He emphasized that intensity of family strain (or felt stress) can best be predicted by the availability to the carer of social support: less support implies more strain. Brody et al. (1989) also showed that the carers experience less burden when they feel other families are involved. In addition, Greenberg, in his study of developing a family assessment caregiving scale, called attention to the fact that caring for an elderly family member is a "family affair". He emphasized that the caregiving at the family system level was more important than focusing on primary carers only (Greenberg, et al., 1993).

3.3.2.3.2 Family members' experiences in the decision-making process

A classic study of Miller and colleagues (1960) indicated that decisions are cognitive behavioral events shaped by three considerations. These include beliefs about how things ought to be; ideas about what the future is likely to be and how that future is to be secured. Ideally, decision makers evaluate the validity of their options by whether various options will enhance their future without violating his or her morals, values and beliefs—or interfering with the achievement of goals.

Drawing on the work of Janis and Mann (1977) on the decision-making process, decision-making about institutional care by the family for the older person is conceptualized as having four stages: *recognition* of the potential for institutionalization; *discussion* of the institutionalization option; *implementation* of action steps towards institutionalization; and *placement* of the relative in the institutional setting. Gonyea (1987) investigated the planning by family members for the institutionalization of their elderly relatives and indicated that both the structural and dynamic variables make independent contributions to the predictions of the carer's involvement in each stage of decision-making. These variables include the characteristics of the frail older person, the primary carer and the family; also the caregiving involvement and the perceptions of the caring role. The family decision-making perspective also emphasizes the importance of type of relationship in the

decision to institutionalize. When the spouse or children of the older patients are available, they are likely to be responsible for the decision about institutionalization and also serve as the resident's sponsor, whereas other relatives are less likely to be involved (McAuley and Travis, 1997).

According to Kraus et al. (1976b), while relatives of applicants were generally favorably inclined toward the proposed move of the applicant, 62% of them mentioned at least one worry. They had considerable anxiety about the quality of care in the institutions and whether the applicants would like living there. Johnson (1992) identified that uncertainties and conflicts were the two major conceptual categories when family members face the transition of their loved one to a nursing home. King, Collins and Kokinakis (1992) also indicated that most often guilt and distress are the predominant family response. After placing their elderly relative in a nursing home, the carer's perceptions of burden and stress persisted (Dellesega, 1991). Thus, burden still seems to exist among the families after institutionalizing their frail elderly relative. Dellasega and Mastrian (1995) showed that in the decision making process, failure to proactively plan for the future care needs of an incapacitated elder person made the process more difficult. Rodgers (1997) also found significant implications that lack of advanced planning, need for time and information, and supportive interventions are common in the process of institutionalizing the elders (Rodgers, 1997). During the period of admitting their frail elderly relatives, families often experience considerable guilt and emotional turmoil, but rarely receive any help in dealing with their distress (Allen et al., 1992; Dellasega and Mastrian, 1995).

Arling and McAuley (1983) showed that it is not easy to distinguish the effects of the characteristics of the older person from those of the carers as precursors to institutionalization. Relatives of applicants for nursing home care frequently cite both classes of reasons. In order to explore the factors which may influence the decision making process in a family network, this investigation is from the perspectives of both the elderly patients in nursing homes and from their carers. For those patients who may not experience being taken care of at own home (for example, if they were admitted suddenly after an accident), their key families are interviewed as the proxy.

3.3.2.4 The professionals

In previous research, professionals such as doctors, nurses, social workers, nursing home administrators …etc. have been reported as being very important in the institutionalization of elderly people (Kraus et al., 1976b; Nolan et al., 1996; McAuley and Travis, 1997). In the study of Kraus et al. (1976b), the application for admission to a long-term care institution was first suggested by a doctor in 49 percent of cases, by the offspring of the applicant in 18% and by the applicant her/himself in 17% of the applications. McAuley and Travis (1997) also showed that health care professionals, especially physicians, were found to be very influential in the decision process. In addition, social workers were found to be in a key position in helping elderly people with the discharge decision and in accepting it (Cox, 1996), for example. Nolan et al. (1996) also emphasized the important role of nurses in determining the need to enter care because they are unique in having 24-hour responsibility. This means that nurses are likely to know their patients better than others.

In the pilot study for this research, the decision to choose entry to a nursing home was found to be almost solely an issue within families in Taiwan. The professionals involved did little apart from making some suggestions. In this research, the decision was taken to interview the elderly patients and their families in the nursing homes because the focus was on the nature of family involvement and this was the central concern of the research. It was necessary to understand the characteristics and the role of families/carers in the decision-making process in Taiwan. This was to examine who was influential in the decision-making process to make a nursing home choice for their frail older relatives and the factors which influenced their decision. How the carers/families of elderly people were involved in this process and their influences about institutionalization were also be examined.

3.3.2.5 Previous research and unanswered questions about this issue in Taiwan

Some previous research in Taiwan have been focused on carers and their caregiving burden. According to Hu et al. (1996), most of the frail elderly people (78%) in Taiwan were taken care of by their families, while only 8% of the frail elderly were taken care of by paid-helpers and 14% of them were sent to institutions. Although other alternatives (paid-helpers, institutional care) had been considered by

family carers, those alternatives were finally rejected by 'economic' and 'quality' reasons. 'Culture' as a reason was also an important factor to be brought into consideration. Although about 50% potential needs been detected among those frail elderly who were taken care at home, families were under pressure of filial responsibility and were afraid to be labeled as sending frail elderly relatives to institutions and abandoning them. In most of the situations, paid-helpers (cost NT.60000-70000/per month) in Taiwan are more expensive than living in institutions (NT.25000-50000/per month). Therefore, among those sending frail elderly to institutions rather than hiring paid-helpers, economic difficulty might be a main reason for them to do so (Hu et al., 1996). One piece of research by Wu et al. (1997) among 317 nursing home residents showed that the intergenerational exchange had a statistically significant effect on nursing home admission after controlling for socio-demographic characteristics and health status. They indicated that the odds ratio of being admitted into a nursing home was lower for those elderly people who provided instrumental assistance to their families before they were disabled.

With respect to the carer's burden, a study conducted by Wu, S.L. et al. (1992) aimed to understand the burdens and demands among 238 primary carers in Taiwan. They found that the average age of primary carers were 53.7, 63.4% were female and 33.6% were spouses of the frail elderly people. The carer's burden was influenced mainly by five factors. These were the age, level of support by family or friends, self-rating health status, length of time of taking care of the frail elderly person, and the dependency level of the frail elderly person. Wu, S. L. et al. undertook another study in 1991 among 192 primary carers of the frail elderly people in a home care program sampling from 36 hospitals. They found that the average age of the frail elderly people were 72.8 and many of them were highly dependent. Seventy two percent of the primary carers were female and most of them were spouses. The authors indicated that the carer's burden can be explained by the following factors: the availability of a carer for the frail elderly person, the level of positive relationship between the carer and the elderly person, and the level of negative health status of the carers.

Caring for disabled elderly relatives at home is the main mode of long-term care in Taiwan. Although the Visiting Nurse Service System in the home care program has

been developed, carers' needs and the adequacy of such services has not yet been explored, especially through the carers' own experiences.

In order to assess community long-term care need from the carer's perspective, 262 out of 909 disabled elderly discharged from hospital were identified and their carers were interviewed by Hu, et al. (1995). They found that:

1) 78% of the disabled elderly people were cared by family members in their own homes, and most of them needed constant care;

2) Most of the carers were women. According to them, the difficulties in caring were less related to the severity of their disability, but rather than to non-medical tasks and interpersonal problems;

3) Very few of the carers had ever received formal training or support from home care services, and many of them had difficulties in communicating with doctors. However, in some cases, traditional healing methods played an important role;

4) Family members and neighbors can only play a supplementary role in care;

5) Home-health helpers and nursing home services are the only alternatives carers can expect to replace them and there exist serious cultural and financial barriers. (Hu, et al., 1995)

Because nursing home care is brand new, previous research has mainly focused on residential homes, a variety of Veteran's homes and some on home care programs. Family networks based on the decision-making process, especially for the nursing home entry has not yet been explored in Taiwan. The role of nursing homes is thought to be important not only for the people who are in need but also for its role in linking between post acute care and long term care. These issues are evidently important and are the main interests to be explored in this research.

3.4 THE SUPPLY SIDE OF NURSING HOME CARE IN TAIWAN

In general, identifying the important client risk factors for nursing home entry can assist program targeting, case management, and efforts to develop the long-term care program. But understanding client characteristics and their decision-making process is only part of the picture. That the demand for long-term care was also influenced by supply side factors has been explored in chapter 2. Wennberg (1987) observed that researchers generally investigate the determinants of utilization without

regard to the market context (supply aspects) in which services are delivered and these supply side information such as the availability of services in the community is actually the 'macro-level' variables which also influence the service utilization (Gesler et al., 1998). On the supply side, this research focuses on the policy context of the government, the reimbursement policy of the national health insurance (NHI) and the provider's view (i.e., the owners/proprietors of nursing homes). It is also needed to identify other factors that affect nursing home use like the bed supply of the chronic hospitals, the availability of community services, the presence of insurance, and others. These factors are likely to have very powerful effects on nursing home use or provision. For example, a discrete-time hazard function approach conducted by Greene and Ondrich (1990) indicated that the supply of nursing home beds in the area also played a significant factor in predicting nursing home admission. Observed nursing home use rates are a function of the local configuration of long-term care services and specific reimbursement policies. The nature and level of nursing home utilization is, in part, a function of systemic factors as well as client characteristics (Cohen, M. A. et al., 1986). Thus, substantial changes in the system are likely lead to changes in the relative importance of risk factors on the probability of nursing home entry. Because there is little basis for distinguishing the relative magnitudes of those components, in this way, it is also important to understand how different policy or system changes are likely to affect the patterns of nursing home use from the point of view of providers.

3.4.1 Provision of long-term care facilities in the market

As we know, long-term care covers all forms of the social care and health care of elderly people who are unable to look after themselves without some degree of support. It is estimated by the DOH, Taiwan (1998) that there are approximately 95,590 elderly people aged 65 and over who need long-term care, 5.5% of the elderly people in Taiwan. According to the Social Status Report for Senior Citizens (SSRSC, 1996), most (90%) of the elderly people who need long-term care currently live in their own homes. Most of them are taken care of by their families, especially spouses, daughter-in-laws, or daughters (Wu et al., 1991; Wu and Lin, 1999). The other 10% of elderly people who need care assistance live in institutions either in chronic

hospitals or in a variety of long-term care institutions such as nursing homes, residential homes. Since the issue of formal long-term care is relatively new in Taiwan, the first step in the government policy is to ensure that the long-term care resources exist and are available. Apart from a variety of social welfare policies under the supervision of the Ministry of Interior (MOI) as mentioned in chapter 1, the provision of long-term care now in Taiwan (in addition to informal care by families) mainly includes three types of care: home (nursing) care, community care and institutional care (as mentioned in 1.4.6.2). Because the long-term care plan was only formally launched in 1995, the provision of all forms of long-term care under the supervision of DOH, Taiwan remains rare and mostly private. Referring to the background information in Chapter 1 on institutional care, only registered residential homes and nursing homes are under government supervision and quality control. All these institutions need no assessment for people's entry except for those on low incomes who can live in residential care settings free of charge. Therefore, most of the elderly people in institutional care either pay fees themselves or their families do. After the implementation of NHI in 1995, the discharge plan from hospital is encouraged but not provided for every patient. Some patients receive only suggestions about where to go after discharge.

Extended care beds in long-term hospitals (which was 4,691 beds contracted with the NHI in 1996) have been covered in the NHI Scheme. However, they are not the main focus under the long-term care plan of the DOH. Home care and day care centres, as well as nursing homes, are under the Department of Health (DOH) supervision. Home care has been covered by the NHI since 1995. It means that once the individual elderly person is accepted by the home care program, s/he can get free home care services (i.e., home visiting services by nurses or doctors) each month. Domestic services, including domestic help and personal care, are paid for privately except for elderly people who live alone under the supervision of MOI. It is not yet popular in Taiwan.

3.4.2 Government intervention and financial arrangements in Taiwan

In 1995, the Taiwan government launched a 15-year long-term care plan and since then, there has been legislation and regulations about nursing homes. In terms of

the government intervention, the government has done a number of things especially subsidizing the establishment of nursing homes in every county and setting up the national nursing home inspection standards. It also announced in the three-year plan of long-term care a time schedule for setting up public hospital-based nursing homes. Thus, the numbers of the public nursing homes will increase quickly in the near future. In this research, government documents in relation to long-term care, especially nursing home care have also been investigated to consider the role of the Taiwan government as regards supply.

Finance is another important factor which affects the numbers of health care users (as mentioned in chapter 2). Previous research proved that the risk of entering nursing homes will be higher when welfare or other insurance helps pay for services (Cohen et al., 1986, 1988; The Royal commission Report, 1999, Vol. 1). Higher income has also been shown to contribute to a higher risk of nursing home entry (Evashwick et al., 1984; Vincent et al., 1979; Greenberg and Ginn, 1979; Morris et al., 1987; Wu et al, 1994). Finance is actually a leading factor for the development of care services. However, policy towards free access to health services or getting reimbursement from national insurance will be nationwide and it is inevitably led to wider issues about the way that care is and should be delivered (Joseph Rowntree Foundation Inquiry, 1996). In Western countries, a variety of methods in financing long-term care have been explored such as funding by general taxation, social insurance or a funded social insurance scheme (Joseph Rowntree Foundation Inquiry, 1996). All of these have their pros and cons in terms of considering questions about the future provision of care; the balance of responsibility between the individuals and the state; the mechanisms to ensure an appropriate funding system; and the arrangements of care between public and private sectors…etc.. Different strategies have also been suggested in that reducing the state's financial burden to funding the long-term care such as the distinguishing between the personal care costs and the accommodation costs; and the innovations of other alternatives in the community.

In Taiwan, the National Health Insurance Scheme appears to be the main source covering the costs of health care in Taiwan. It is proposed by the government that the individual insurance contributions should be compulsory, calculated on the basis of pooling the risks, which would be put into a fund. The social security system has also been based on the social insurance model (i.e., the Employees' insurance, the Labour

insurance and the Farmer health insurance...etc.) in that the rate of premium is based on the percentages of personal incomes and subsidized by the central and local governments. In terms of the financial arrangements toward long-term care in Taiwan, nursing home care remains outside the scope of National Health Insurance Scheme. The payments for nursing home services are mainly paid privately by elderly people or their families except for those on low incomes. However, due to critical needs, the possibility for covering nursing home care in NHI has been causing concern. In order to avoid induced demand and excessive use, an assessment system such as 'means-tests' in case management has been suggested and seems to be imperative and critical.

On the other hand, under the supervision of MOI, the financial arrangements toward a variety of residential care settings have also been positively increased between 1988 and 1994. Statistics showed that the percentage of social welfare expenditure among the Taiwan government's annual budget has increased from 15.61% in 1991 to 20.6% in 1997 (MOI, 1998). Although it is still a low level comparing to Western countries, the Taiwan government has played an increasingly important role on social welfare.

3.4.3 The proprietors of nursing homes

When the nursing home services remain privately paid for by the users, the owners/proprietors of nursing homes play an important role in the market. Their choice of investment in the nursing home industry, their charging policy, policy of admitting patients and the style of management shape the extent and type of nursing homes.

Regarding the supply side of nursing home care, this research did not have the capacity to assess all the possible factors as mentioned previously. Apart from searching for the published government documents, a sample of proprietors in the registered nursing homes in Taiwan were investigated in order to explain their background, motives to invest, their view toward long-term care policy and the impact of the government policy.

Under this research framework, a set of hypotheses which is derived for each part (demand and supply) has been stated in chapter 1 (please see 1.5.2). The way

which has been used to approach these issues in the study—the methodology, is explained in the next chapter.

Table 3-1. Studies tabulated by the author of the risk factors as related to the entry/utilization of nursing homes or institutional care by elderly people

AUTHORS	DESCRIPTION OF THE STUDIES
Allen et al. (1992), UK	A study to examine the extent to which elderly people exercising choice, participation and satisfaction about their care both in the community and in residential care in three local authorities
Anderson et al. (1998), USA	A longitudinal study on ageing to describe the heterogeneity of functional status transitions over 2-years, and explore whether changes in status in the previous period enhance the prediction of subsequent transitions.
Boaz and Muller (1994), USA	A 2-year follow up study (1982 and 1984) examines on the extent to which the risk of a long nursing home stay is reduced by the availability of informal help in the community.
Branch and Jette (1982), USA	Prospective cohort study over 6 years on determinants of entering a nursing home or chronic disease hospital among non institutionalized elderly people
Brock and O'Sullivan (1985), USA	Cross-sectional study on two population groups to determine which variables distinguish newly institutionalized elderly people from elderly people able to remain in the community.
Chiu, L. et al. (1997), Taiwan, R.O.C.	A cost-effective analysis of home care and community-based nursing homes for stroke patients and their families.
Cohen et al. (1986), USA	Prospective cohort study over 1 year on predictors of nursing home entry among Medicare recipients living in the community
Cohen et al. (1988), USA	Retrospective study over varying periods of time on predictors of nursing home entry among residents of 6 Continuing Care Retirement Communities (CCRC)
Daatland (1983), Norway	Cross-sectional study on factors related to the use of institutional and home care services among elderly residents (70+) of a small town municipality
Evashwick et al. (1984), USA	Prospective cohort study over 15 months on determinants of the use of the nursing homes among elderly people living in the community
Greenberg and Ginn (1979), USA	Cross-sectional study on predictors of institutionalization among "new" users (60+) of skilled nursing homes and in-home care
Greene and Ondrich (1990), USA	Discrete-time hazard functions were estimated to determine factors associated with the probability of admission to a nursing home from the community and the probability of discharge to the community from nursing home care, for 3,332 individuals enrolled in the National Long Term Care Channeling Demonstration
Grundy and Glaser (1997), UK	Cross sequential analysis of comparing transitions from private households to institutions between 1971-81 and 1981-91 among elderly people
Hedrick et al. (1989), USA	Meta-analysis of 13(quasi-) experimental studies on the effect of home care on mortality and nursing home placements
Ikegami, N. (1982), Japan	Cross-sectional study on the elderly people aged 65 and over at home and in institutions in a rural town of Japan to reveal the

	physical and socio-psychological factors which were related to their placements.
Jette et al. (1992), USA	Using Andersen's model as a conceptual framework, a sample of 1,625 Massachusetts elderly was studied prospectively over a decade to identify risk profiles for long-term care institutionalization.
Jette et al. (1995), USA	A longitudinal study to examine the effects of informal and formal community care on the 6-year risk of nursing home use in a representative sample of disabled elders.
Kane and Matthias (1984), USA	A logistic regression model developed to predict elderly patients' risk for discharge to nursing home following hospitalization among four areas.
Knopman et al. (1988), USA	Prospective study over at least 2 years on determinants of institutionalization among outpatients with primary degenerative dementia attending a dementia clinic
Kraus, et al.(1976a) I and Kraus, et al. (1976b) II, Canada	Cross-sectional study on 193 applicants to long-term care institutions in Kingston and Napanee of Canada about their characteristics and the application process; placement and care needs.
McCoy and Edwards (1981), USA	One year prospective study on predictors of institutionalization among elderly persons with old-age assistance
McFall and Miller (1992), USA	Two survey data were used to test the importance of caregiver burden for risk of admission to a nursing home by using logistic regression statistic method
Morris et al. (1987), USA	One year prospective study on the impact of different housing and case-managed home care programs on the use of the nursing homes and chronic hospitals, among 5 samples of elderly people, stratified by 4 constructed institutional risk categories
Morris et al. (1988), USA	Development of a risk classification system to predict entering a nursing home or chronic disease hospital, based on a prospective cohort study over 2 and 4 years among community-residing elderly
Neill et al. (1988), UK	A study of elderly applicants for local authority homes
Roos et al. (1988), Canada	A 2-year follow up study on predictors of the nursing home entry among elderly people living in the community with full coverage in the health-insurance system
Scott et al. (1997), USA	A longitudinal study to identify factors increasing the risk of institutionalization in people with dementia among 786 patients
Severson, et al. (1994), USA	A longitudinal study to investigate patterns and predictors of institutionalization among a community-based sample of dementia patients
Shapiro and Tate (1985), Canada	Prospective cohort study over 2.5 years and 7 years on predictors of long-term care facility use among elderly people living in the community
Shapiro and Tate	Comparison of the characteristics of 2 elderly cohorts, their use of

(1989), Canada	nursing homes over 6.5 years, and the supply of care
Sinclair (1988; 1990), UK	Studies of factors predicting admission of elderly people to local authority residential care
Smyer (1980), USA	Cross-sectional comparison of characteristics of elderly patients, matched on ADL, residing in intermediate care facilities or receiving home care
Tennstedt et al. (1993), USA	Longitudinal study of frail older people and their informal caregivers on determinants of the pattern of community care
Vicente et al. (1979), USA	Retrospective study over 10 years on determinants of nursing home utilization among the elderly
Wan and Odell (1981), USA	Cross-sectional study among elderly community residents on determinants of the use of health (including institutionalization) and social care in the year prior to the study
Warburton (1994), UK	A review of recent research evidence to explain why some elderly people entering residential care homes
Weissert and Cready (1989), USA	Cross-sectional study among elderly community and nursing home residents on predictors of institutional residency
Wierik et al. (1992), Netherlands	Cross-sectional design to investigate factors which contribute to the utilization of nursing homes and/or homes for the aged among 248 elderly people
Woo et al. (1994), Hong Kong	Cross-sectional study among elderly people aged 70+ in Hong Kong to examine their needs for long-term institutional care
Wu et al. (1994), Taiwan, R.O.C.	Cross-sectional study among 415 older adults living in four communities around Taipei Area, Taiwan to examine the factors associated with the willingness of community elderly to reside in a nursing home
Wu et al. (1996)	Cross-sectional study among 1,556 respondents aged 20-64 to examine public attitudes toward three types (institutional, community-based and home-based) of long-term care arrangements
Wu and Chu (1996), Taiwan, R.O.C.	Cross-sectional study among 1,556 respondents aged 20-64 to examine the public attitudes toward long-term care arrangements for elderly people in Taiwan
Wu et al (1997), Taiwan, R.O.C.	Case-control study among elderly people in Taiwan to examine the influence of intergenerational exchange on nursing home admission
Wu et al. (1997), Taiwan, R.O.C.	Cross-sectional study among 317 nursing home patients to examine the effect of intergenerational exchange on nursing home admission

RESULTS PER FACTOR	IMPACT ON USE OF NURSING HOMES OR INSTITUTIONAL CARE
PREDISPOSING	
AGE	
Branch and Jette (1982)	Aged 80 year or older is a risk factor of institutionalization
Brock and O'Sullivan (1985)	Advanced age is a major predictor of institutionalization
Cohen et al. (1986)	Aged-related probability increased at an increasing rate

Cohen et al. (1988)	Older entrants in CCRC had a greater relative risk
Daatland (1983)	Age had the greatest impact on the use of services; the effect was stronger in town than in more rural area
Greene and Ondrich (1990)	Age was found to be a significant factor in risk of institutionalization
Grundy and Glaser (1997)	The effect of age was stronger for institutionalization in the second decade
Jette et al. (1992)	Age was found to be one of the strongest predictors of institutionalization
Kane and Matthias (1984)	Age was the only consistently strong predictor in the individualized models developed for each area
Kraus et al. (1976a)	Applicants for institutional care were found to be older
McCoy and Edwards (1981)	Age was closely associated with higher probabilities
McFall and Miller (1992)	Age is an important predictor of nursing home admission
Morris et al. (1988)	Advanced age contributed to high risk status
Roos et al. (1988)	Higher age was a risk factor
Shapiro and Tate (1989)	In the short and long term, advanced age was a risk factor
Sincliar (1990)	There is a link between age and admission; elderly people in residential homes tend to be older than the general population
Vicente et al. (1979)	Age was the best predictor. It makes a large contribution to the risk of institutionalization.
Weissert and Cready (1989)	Higher age was a risk factor
Woo et al. (1994)	Age is a main factor associated with institutionalization
GENDER	
Cohen et al. (1986)	Gender is a risk factor of institutionalization
Greenberg and Ginn (1979)	Women are more likely to enter a nursing home
Kane and Matthias (1984)	Female were more likely to be discharged to nursing homes
Morris et al. (1988)	Being female contributed to high risk status
Roos et al. (1988)	Females were more likely to enter a nursing home
Shapiro and Tate (1989)	In the long term, being female was a risk factor
Sinclair (1990)	Widowed or single men were more likely to apply for residential care compared with single or widowed women of the same age.
Wu et al. (1994)	Men have higher willingness to reside in nursing homes than women
Wu et al. (1994)	Men were less frequently admitted to a nursing home
MARITAL STATUS	
Cohen et al. (1986)	Being widowed was positively related to nursing home entry; the impact of never being married increased with age
Cohen et al. (1988)	Being married decreased the likelihood of nursing home entry
Daatland (1983)	Marriage was a stronger protection for older men (80+) than for older women
Greenberg and Ginn (1979)	Widowed and unmarried persons were more likely to enter a

	nursing home
Kraus et al. (1976a)	Applicants to institutional care were found to be less often living with a spouse
Severson et al. (1994)	Marital status was a significant term in hazards models of institutionalization
Vicente et al. (1979)	Unmarried persons had a higher risk
Weissert and Cready (1989)	Lack of a spouse increased the risk
Woo et al. (1994)	Marital status is a main risk factor associated with institutionalization
ETHNICITY	
Greene and Ondrich (1990)	Ethnicity was found to be a significant influence on predisposition to nursing home admission. Black and Hispanics were significantly less likely to enter a nursing home.
McCoy and Edwards (1981)	Nursing home residents are predominantly white in USA
McFall and Miller (1992)	Race (white) is an important predictor of nursing home admission
Vincente et al. (1979)	Being white is associated with high risk of staying in a nursing home for more than six months.
Weissert and Cready (1989)	Being white appears to be determinants of institutional residency among the aged
Wu et al. (1997)	In Taiwan, the likelihood of nursing home entry was higher for mainlanders
SOCIAL SUPPORT	
Allen et al. (1992)	A lack of support (for users and carers) from community services could lead to admission to a residential care home; elderly people choose residential care as life there was attractive because of the companionship that was perceived to be available
Allen et al. (1992)	Carers' willingness to care and stress they experienced were factors helped to precipitate admission to residential care
Boaz and Muller (1994)	The relatively strong effects of family helpers and living arrangements on the risk of long nursing home stay confirm that adequate help in the community reduces the risk of permanent nursing home residence
Brock and O'Sullivan (1985)	Lack of social support is a major predictor of institutionalization rather than other social variables.
Chiu, et al. (1997)	The labor input from family caregiving accounted for at least 60% of the total family costs of the patients.
Daatland (1983)	Aged persons in more rural areas with nearby daughters were institutionalized less often; in urban areas there was no such effect
Greenberg and Ginn (1979)	No help from relatives and without living children increased the risk and also those who are less able to make decisions
Ikegami (1982)	Family caring capacity was found significant for elderly

	people who stay at home. The elderly people at home had a greater possibility of having a healthy, not employed caring person.
Jette et al. (1995)	There were a modest reduction in risk of using a nursing home among those receiving greater amounts of informal care.
Kraus et al. (1976a)	Applicants for institutional care had been much less involved in recent social and recreational activities, although most had not been socially isolated. They also had received much more extensive help from relatives and friends and it seemed unlikely that additional help from these sources could have kept many of them out of institutions
McCoy and Edwards (1981)	Persons with frequent contacts with friends or relatives were less likely to be institutionalized
McFall and Miller (1992)	Lack of social support is strongly related to the caregiver burden and contributes to risk of institutionalization.
Morris et al. (1988)	Absence of children nearby contributed to high risk status
Neill et al. (1988)	The receipt of no community-based help could precipitate admission
Neill et al. (1988)	Increasing frailty and reduced confidence of users after treatment in hospitals, allied to fears about safety of discharge and reluctance of carers to resume caring are major factors which led to admission to residential care direct from hospital
Sinclair (1990)	A lack of informal carers is a major reason for applications for or actual admission to a residential care home
Smyer (1980)	The institutionalized group was more likely to have had less social support available in the community and to be more impaired in the area of social resources
Wierik et al. (1992)	The nursing home applicants had a well-functioning social network, e.g. the informal care index and the number of visits received were much higher among them than applicants to homes for the aged
Wu et al. (1994)	Absence of female family members contributed to the preference for institutionalization
Wu et al. (1994)	Absence of children contributed to the preference for nursing home entry
MENTAL STATUS	
Branch and Jette (1982)	Increased risk for mentally disoriented elderly, especially when living with other people
Severson et al. (1994)	within the dementia samples, having decreased global cognitive integrity at baseline increased the risk for subsequent nursing home placement
Shapiro and Tate (1989)	In the short and long term, mental impairment was a risk factor

Sinclair (1988)	It is particularly difficult to care elderly people with dementia at home because it is difficult to predict when help will be needed
Smyer (1980)	The institutionalized group was more likely to be impaired in the area of mental health
Kane and Matthias (1984)	Patients with mental diagnoses were more likely to be discharged to nursing homes
Knopman et al. (1988)	Patients with advanced dementia had a higher risk, which increased when disruptive behaviour was present
Kraus et al. (1976a)	Applicants were with characteristics of much more dementia, loneliness and depression
Morris et al. (1988)	Presence of mental/emotional problems and memory disturbances contributed to high risk status
Weissert and Cready (1989)	Among diagnoses, presence of mental disorders was the most important factor
HOUSEHOLD COMPOSITION/LIVING ARRANGEMENTS	
Allen et al. (1992)	Admission following falls or fractures could be rapid, especially when the elderly person lived alone
Branch and Jette (1982)	Living alone was a risk factor, especially for younger elderly persons
Cohen et al. (1986)	Not living alone decreased the likelihood
Greene and Ondrich (1990)	Living arrangements (whether the respondent lived alone) significantly predicted the nursing home admission
Jette et al. (1995)	Elders lived with their primary caregivers were at reduced risk of nursing home use
McCoy and Edwards (1981)	Living alone or with non-relatives was a risk factor
Roos et al. (1988)	Living with a spouse decreased the risk
Shapiro and Tate (1989)	In the short and long term, living without a spouse increased the risk
Sinclair (1990)	Elderly people living with others regret about the process of admission because they often think (inaccurately) that their families are planning to abandon them
Vicente et al. (1979)	Living alone was a risk factor
Wierik et al. (1992)	The applicants to homes for the aged mostly lived alone, whereas 70% of the nursing home applicants at home were living with others
Wu et al. (1997)	A distinctive difference between cases and controls was that nursing home residents (the cases) were more likely to live alone before they moved into a nursing home than community controls
HOUSING	
Greene and Ondrich (1990)	Being a home-owner significantly reduced risk of institutionalization.
Morris et al. (1988)	Living in adapted or public housing contributed to high risk status

Neill et al. (1988)	Poor housing conditions contributed to residential care
Shapiro and Tate (1985)	In the short and long term, elderly people residing in senior citizen's housing were more likely to be institutionalized

ENABLING

EDUCATION

Wu et al. (1996)	Higher education level contributed to the preference for (formal) community-based care

FINANCIAL MEANS

Cohen et al. (1986)	Persons for whom welfare or other insurance helped pay for services were more likely to enter
Evashwick et al. (1984)	Persons with higher incomes had a greater risk
Greenberg and Ginn (1979)	Persons with higher incomes had a greater risk
Jette et al. (1992)	The effect of income was significant among those elderly people under age 70. Those under age 70 with incomes under $5,000 in 1974 were at almost 4 times the institutionalization risk of those whose 1974 incomes were over $5,000
Kraus et al. (1976a)	Applicants for institutional care were reported to have lower incomes
Ikegami (1982)	Economic factors were relevant only for those in the home for the aged and not significant for the hospitalized
Morris et al. (1988)	Higher income contributed to high risk status
Neill et al. (1988)	Low income is a possible contributory reason for admission to residential care homes
Vicente et al. (1979)	Persons with inadequate or marginal incomes were more likely to stay in a nursing home for 6 months or longer
Weissert and Cready (1989)	Living below the poverty line increased the risk
Wu et al. (1997)	Families with higher income appear to be eight times more likely to seek long-term care at nursing home for their elderly

COMMUNITY OF RESIDENCE

Cohen et al. (1988)	The effect of individual communities was the most important explanatory variable
Daatland (1983)	Town dwellers used more services than the aged from more rural areas
Greene and Ondrich (1990)	Living in a community with a larger rate of nursing home beds significantly increases risk of admission
McCoy and Edwards (1981)	Residence in economically depressed areas was associated with lower probability
Tennstedt et al, (1993)	Co-residence rather than the kinship tie is more important in determining the pattern of caregiving.
Wissert and Cready (1989)	The odds of being a nursing home resident were greater for those living in counties with empty beds
Wu et al. (1994)	Town dwellers had higher preference to institutional care services

USE OF FORMAL CARE

Allen et al. (1992)	A quarter of elderly people admitted to homes direct from hospital and a further quarter of elderly people admitted to homes had been in hospital in the year leading up to admission
Branch and Jette (1982)	Infrequent use of/ having minimal contact with the health services was related to institutionalization in a full logistic model but not in a stepwise one
Evashwick et al. (1984)	Seeing a physician on a problem rather than a regular basis is a patient-level determinants of institutionalization.
Greene and Ondrich (1990)	Numbers of physician visits over the previous two months decreased the monthly risk of admission. This may reflect the efficacy of medical supervision and intervention in helping individuals to remain in the community.
Grundy and Glaser (1997)	Increase access to institutional care undoubtedly is one factor underlying the higher transition rate to institutions observed in 1981-91 than for the previous decade
Hedrick et al. (1989)	The meta-analysis produces stronger evidence of a beneficial effect of home care on nursing-home placement
Jette et al. (1992)	Elderly people who reported a LTC admission at a prior wave were over 5 times more likely to have been in a LTC facility at a subsequent wave than those who did not.
Jette et al. (1995)	It was found that the provision of formal services in addition to informal care was associated with increased risk of nursing home use
Kraus et al. (1976b)	Community agencies and services had been used by a relatively low proportion in Group A (applicants for institutional care) and hardly at all in Group I (elderly persons living in the community)
McCoy and Edwards (1981)	Receipt of formal services was associated with a higher probability of subsequent institutional placement
McFall and Miller (1992)	Use of formal services did not reduce nursing home admission
Morris et al. (1987)	Only for elderly persons with high risk status: those receiving case-managed home care in elderly person's or congregate housing experienced fewer days of nursing home placement
Neill et al. (1988); Sinclair (1990)	The needs to clear beds in acute hospitals has been noted as a reason why some elderly people are discharged direct to residential homes and nursing homes
Smyer (1980)	The institutionalized group was more likely to have had previous contact with other service providers
Wierik et al. (1992)	Nursing home applicants received more professional home care than applicants to homes for the aged

NEED

(Functional status; ADL/IADL; Medical problems; Perceived health status)

Anderson et al. (1998)	The initial disability level, morbidity and self-rated health were the strongest predictors of disability status after two years and the two-state model used in the study could more precisely predict nursing home placement
Branch and Jette (1982)	Using assistance in ADL and/or IADL increase the risk
Chiu et al. (1997)	Most of the patients who are sent to nursing homes are very likely to have severe physical function disability
Cohen et al. (1986)	The more severe the functional disability, the greater the likelihood
Evashwick et al. (1984)	The more ADL limitations, the greater the risk; The 'needy' group used more nursing home services; The more medical problems, the more likely to enter; A poor self-perceived health was a risk factor
Greenberg and Ginn (1979)	ADL limitation was a risk factor (i.e., those who are more functional disabled and in a greater number of medical conditions)
Greene and Ondrich (1990)	Being severely impaired in functional capacity significantly increases risk of admission
Jette et al. (1992)	One or more ADL disabilities resulted in almost 3 times the odds of entering a LTC institution compared with those with no ADL disabilities
Kane and Matthias (1984)	Patients who have had orthopedic surgery were more likely to be discharged to nursing homes
Knopman et al. (1988)	The more ADL problems, the higher the risk
Kraus et al.(1976a)	Applicants for institutional care were characterized by much more cardiovascular disease, incontinence, recent loss of independence in the ADLs, recent hospitalization
McCoy and Edwards (1981)	Self-care ability was the most powerful predictor of institutionalization
McFall and Miller (1992)	The functional limitations as assessed by IADLs is an important predictor of nursing home admission
Morris et al. (1988)	Dependencies in ADL and/or IADL contributed to high risk status; Presence of cancer or stroke/neurological conditions and history of falling contributed to high risk status
Neill et al. (1988)	In need of physical care due to either mental or physical incapacity is a major reason for admission; many elderly people enter residential homes or nursing homes after a fall, fracture or illness requiring hospital treatment
Roos et al. (1988)	One or more basic disabilities increased the risk
Scott et al. (1997)	The decline in ability to perform ADLs was significantly predictive of institutionalization among CLTC clients
Severson et al. (1994)	Having an increased function impairments is a predictor for nursing home placement
Shapiro and Tate (1989)	In the short and long term, ADL limitation was a risk factor; In the long term, a lower self-rated health was a risk factor

Tennstedt, et al. (1993)	Level of frailty is the only important predictor of use of formal services
Vicente et al. (1979)	Chronic conditions and physical disability increased the risk of staying in a nursing home for 6 months or more
Wan and Odell (1981)	Disability status was the most important predictor on health services
Weissert and Cready (1989)	The likelihood of institutional residency increased with the severity of functional dependency
Wierik et al. (1992)	The need factor (including the medical condition) is the most important discriminating characteristic for nursing home applicants
Wu et al. (1997)	Higher percentage (10.8 times higher) of the cases (nursing home residents) than controls (community residents) suffered from cognitive impairment and previous hospitalization also increased the likelihood of nursing home entry
Wu et al. (1994)	Elderly people with more chronic conditions are more likely to agree to reside in a nursing home

Source: Author's analysis.

CHAPTER 4

METHODOLOGY

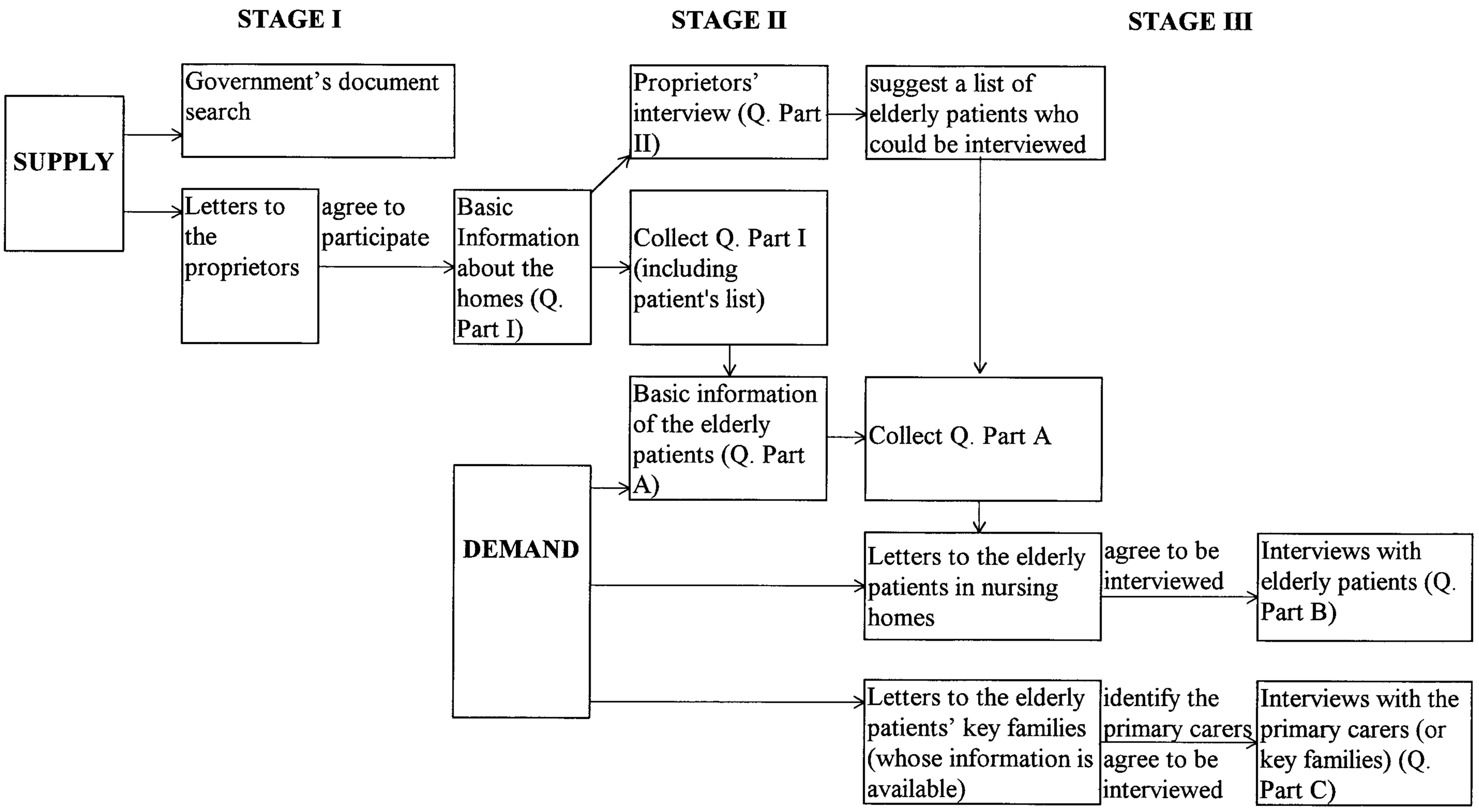
4.1 RESEARCH DESIGN

A cross-sectional research method has been selected in order to explore the factors influencing the demand and supply of nursing home care in Taiwan. This research started with a literature search and a consideration of relevant research methods. The research strategy involved a survey of nursing home proprietors, interviews with a representative sample of nursing home patients and their primary carers/key families. All used questionnaires. This research took place in 1998.

In this chapter, details are given of the methods adopted including how the proprietors of the thirty one registered nursing homes in Taiwan, the elderly patients and their carers were sampled. Issues to do with questionnaire design are then discussed followed by the measures to be used (including dependency level, activities of daily living and family function scale). The methods of interviewing and the results of the pilot study are then given.

This study is concerned with nursing home care in Taiwan. The research design was divided into the demand side and the supply side and the survey data was collected in three stages (Fig. 4-1). The order in which the research took place was first on the supply side--- stages I and II (i.e., the nursing homes and their proprietors) and then on the demand side---stage III (i.e., a survey of patients and carers).

Fig, 4-1. Study Plan



4.1.1 The supply side

A two stage process---a postal questionnaire (stage I) and follow-up interview (stage II) of the registered nursing homes was undertaken. This two-stage process was selected because of the nature of the information required--a combination of factual data, e.g. size and structure of the homes, characteristics of the homes, charges, staff and services, and the patients...etc. and more sensitive material about the proprietors' motives in running a home, cost and future plans.

The owners of each home were approached by letter in stage I to inform them about the study and ask them if they would participate. Complete confidentiality was assured. Sample homes were chosen from the 24 homes agreeing to be included (Table 4-1). Each sample home was asked to send back basic information about the home and then in stage II the interviewer arranged an appointment for the proprietor's interview. A semi-structured questionnaire was used. In addition, published government documents were also searched and queries to government representatives where necessary were raised.

4.1.2 The demand side

Basic information on all the patients in the sample nursing homes was collected in stage II as a database which presented the profile of nursing home patients and was compared with elderly people in the community in order to explore the possible risk for nursing home admissions. A sample of the patients and their carers were interviewed in stage III combined with informal observation in order to explore the way in which people were admitted into nursing homes, the reason why they chose nursing home entry, and what choices were available during the process of admission.

A structured questionnaire had been designed to obtain a profile of the nursing home patients and their carers. In addition, the journey into nursing home care and the family decision-making process around nursing home admission was explored.

4.2 RESEARCH LIMITATIONS

There are a number of limitations to this research. Firstly, it was not feasible to include all the nursing homes in Taiwan area as most of them were unregistered when the survey was conducted (see details in chapter 3). There is also a problem about the vagueness of the distinction between nursing homes and residential homes in Taiwan among those unregistered homes. The focus of this research was on all the formal registered nursing homes in Taiwan and their current patients because this was a clearly defined group. This, of course, only gives a partial picture of nursing homes in Taiwan. However, in the near future it is planned that all the nursing homes in Taiwan will be registered and regularly inspected by the DOH to ensure their quality of care.

Secondly, although this research has presented the sample homes by three types (public hospital-based nursing homes, private hospital-based nursing homes and freestanding nursing homes), it did not purposely differentiate between the public sector, private sector and non-profit providers of nursing home care. This is either because the distinction was difficult to make due to too small numbers of registered nursing homes or because, in terms of reasons for admission, the distinction was unimportant under current policy.

Thirdly, according to previous research, there are important differences between risk of entry into an institution and the risk of staying there for a long time (Vicente, et al., 1979; Weissert and Cready, 1989; Boaz, et al., 1994). Short stays are likely to be extensions of acute hospital care while long stays represent much more permanent residence in a nursing home. Because of the nature of the cross-sectional study design, it was only possible to get the information about average length of stay (LOS) for the elderly patients in nursing homes at the time of interview. The complete length of stay of each patient in these nursing homes was not known[1]. After the pilot study and consulting with the nursing home owners, it was found that most of the patients in the registered nursing homes had an average length of stay of more than

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[1] However, long stayers defined at the time of interview could be chosen separately to see if any potential difference exits among all nursing home sample patients. "Three months" was usually chosen as the cut off point according to previous research (Boaz et al., 1994). It had been reported that because the turnover rates were very high in nursing homes in USA, the proportion of long stayers in a home at any given time tended to exceed the proportion of patients who were short stayers (Weissert and Cready, 1989). Previous research also showed that the odds of returning to the community were reasonably high during the first three months of nursing home entry but they diminished rapidly for

three months. Because some of the nursing homes were newly opened, some patients might stay for less than three months in the future. Also because the sample size was not big enough to split meaningfully, short stayers and long stayers were therefore not differentiated in this research.

Fourthly, elderly people living in the community were used as a comparative group in order to see whether there was any difference between the elderly people in nursing homes and in the community. The 1996 Social Status Report of Senior Citizens (SSRSC), data of an official national survey of 21,550 households in Taiwan has been used for comparison. This secondary source of data was used to make some comparisons within the constraint of the availability of the common variables.

Finally, this study approached the decision making process of elderly patients in nursing homes from the point of view of lucid elderly patients themselves and from the responding families. Interviews with the professional care providers were not conducted because it was hard to identify the key professionals such as doctors, nurses or social workers who were actually involved in the process under the long term care system.

4.3 SAMPLING

4.3.1 Methods

The sampling frame in this study was all 31 registered nursing homes in Taiwan (see Appendix A). Of these, 24 registered nursing homes which agreed to take part in the study were divided into public hospital-based nursing homes, private hospital-based nursing homes and freestanding nursing homes. These are the main three types of nursing homes in Taiwan. A two-stage cluster sampling method was used to sample nursing homes and then all consenting patients/proxies in chosen nursing homes. Sampled nursing homes were selected by proportionate stratified random sampling to sample around 30% of homes from each type of home (i.e. using the type of nursing home to distinguish strata)[2]. Thus, 3 public hospital-based nursing homes, 4 private

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longer stays (Coughlin, McBride, and Liu, 1990; Liu et al., 1994; Boaz et al., 1994). These findings provide essential information for designing a long-term care program.

[2] According to DOH, Taiwan (1997), there were about 5% of chronic patients (i.e., those who were in the acute beds for over 30 days) in hospitals. Department of Health, Taiwan, therefore, encourage the

hospital-based nursing homes and 5 freestanding nursing homes were chosen. Geographical factors were considered as far as possible (Table 4-1) (N.B. Different types of registered nursing homes were not evenly distributed. For example, no registered freestanding nursing home was found in Taipei city and no public hospital-based nursing home had yet been established in the southern area of Taiwan).

All the elderly patients in each selected nursing home (and their carers/key family members) were asked to take part. The sample studied consisted of three groups:

a) All the proprietors of the selected nursing homes were to be interviewed.
b) All the lucid elderly patients who consented along with their carers/ key family members were to be interviewed.
c) Consenting carers/key family members were to be interviewed as proxies on behalf of patients who were unable to communicate.

Table 4-1. Sampling method for the registered nursing homes in Taiwan

TYPES OF NURSING HOMES	NUMBERS	HOMES AGREEING TO PARTICIPATE	SAMPLING
A: Hospital-based (Public sector)	4 homes	3 homes	3 homes (110 patients)
B: Hospital-based (Private sector)	12 homes	10 homes	4 homes (165 patients)
C: Freestanding (Independent sector)	15 homes	11 homes	5 homes (103 patients)
TOTAL	31 homes	24 homes[3]	12 homes (378 patients)

4.3.2 Subjects and procedures

There were three groups of subjects in this research about nursing homes. They were the proprietors of registered nursing homes, the elderly patients and their

public hospitals with low occupancy rate to transfer some of their acute beds to nursing home beds. Because there are 6 public hospitals which are about to include nursing home beds in the next year, there will be 10 public sector nursing homes soon. Under the government's policy, 18 public hospitals are setting up nursing homes in the next three years and will provide 676 beds in total.

[3] The other seven homes which refused to participate were mainly due to reasons as follows:

1. One freestanding home was the home where the pilot was held, so it was excluded from the main study; the other three were newly opened and the proprietors mentioned that they were not well prepared yet.
2. One public-hospital based nursing home had only been opened for one month when this survey was conducted.
3. Two private hospital-based nursing homes mentioned that their homes had recently involved in more than two studies and they were afraid that too much disturbance occurred to their patients.

families/carers. Data collection was, thus, divided into these three main categories. The sampling procedures were as follows.

4.3.2.1 Sampling the nursing homes and their proprietors

A list of the nursing homes registered by Department of Health, R.O.C. in Feb., 1998 (updated) was obtained (Appendix A). Of the 31 homes which had been opened, they provided 1,276 beds in total.

Each registered nursing home had received a letter (Appendix C-I) which explained the study in detail and asked if they wished to take part in the research. Twelve homes were then sampled from those which agreed to take part[4]. Each sample home among those homes agreeing to be included was asked to send back basic information about their homes (Stage I). It was hoped that the registered nursing homes to be included in this investigation would be according to the sampling method mentioned above. Stage II, a proprietors' interview, then followed. The aim was to interview all the proprietors in the sample homes.

4.3.2.2 Sampling the elderly people in the nursing homes

This study focused on elderly patients aged 65 and over in registered nursing homes in Taiwan. After obtaining information about the home and all its patients, it was hoped that all the patients aged 65 and over in each sample home would be interviewed (i.e., the sample would be 100% from each nursing home). However, it was found in the pilot that only lucid patients could be interviewed. The elderly patients who could be interviewed, therefore, become those patients aged 65 and over who were lucid and willing to be interviewed. A letter giving information about the research (Appendix C-II) was given to the elderly patients with the help of the nursing staff asking for their consent. Because it was expected that the patients in nursing homes would be more dependent/frailer (ex. when the patients had senile dementia, were confused or seriously ill or in final stages of terminal diseases) than those in residential homes, information from carers and from nursing staff was to be a proxy

[4] A phone call and a subsequent letter with thanks, which explained the reason for not including the other 12 homes as sample homes such as the consideration of geographical factor, was also sent back to those homes which were not chosen.

when the patient was ineligible to be interviewed. Therefore, the patients to be interviewed were:

1. Currently living in registered sample nursing homes,
2. Aged 65 and over,
3. Lucid, no problem with communication and consented to be interviewed.

4.3.2.3 Sampling the primary carers/key families of nursing home patients

To add depth to the study, the carers (or key family members) in the nursing home entry processes were also included in the study. All the families whose information (addresses / telephones) were available were approached by mail. An informative advance letter (Appendix C-III) was sent to the key families to present the purpose of the project in order to enlist cooperation and reduce non-response (Fowler, 1993). The primary carers (if any) were also asked to be identified in the process. Telephone contacts followed when possible. For lucid patients in nursing homes, the elderly patients were asked to name one person who was or might potentially be significantly involved in taking care of them. For those unable to communicate, apart from the informative advance letter and telephone contacts, the carers were also traced by consulting the nursing staff and talking with the visitors of the patients. If no family had been a primary carer for the patient, the key families were to be interviewed. An appointment with the carer/key family was made and they were then interviewed in the place which they preferred, ideally in the nursing home. A postal questionnaire was also used if the carers were too busy to manage an interview and they agreed this approach. Therefore, the sample consisted of primary carers/key families who considered themselves the primary person providing assistance to their older relatives (or who were relatives named by the elderly patients). This not only enabled the research to take place on carers but also helped a reliability check on the patients.

In summary, considering the small number of the registered nursing homes in Taiwan, it was expected that about 200 patients together with their carers would be interviewed. However, elderly people may be confused for several reasons, for example, CVA, stroke, senile dementia or with a serious illness as previous noted. In these cases, only part A patient information and part C carers/key families interview

were conducted. Therefore, it was not possible to interview the elderly patients and their carers in all cases. No attempt was made in this study to compare the views of elderly people and their families as time and resources did not allow this.

The investigation took place between February and September, 1998. Working time schedules for interviews in each home were arranged after negotiating with each proprietor. On average, interviews in each home were finished within one month from starting the first interview. Basic information on 378 cases was collected from the 12 sampled nursing homes. The researcher (author) undertook all the interviews and completed 68 interviews with the lucid elderly patients and 162 interviews with the family members. The latter included 93 people who were the primary carers of their elderly relatives. Among all the 230 interviews, 25 pairs were matched (i.e., both the elderly people and their families had been interviewed) in this study.

4.3.3 Response rate

Basic information on all the 378 patients in the sample nursing homes was collected (100%) with the help of the nursing staff in each home. There were 91 patients in these sample nursing homes who were regarded as lucid and could be interviewed. Among them, 68 interviews were completed. The response rate was thus 75%. Table 4-2* illustrates the sample available for study and reasons for non-response.

Out of the 378 families, 266 key families were approached by mail. For the other 112 families, no contact information was available (see Table 4-3*, Note 3). Of these 266, 162 interviews with carers/key families were completed. The response rate was 61%. Reasons for non-response were mainly that families could not be reached (by both mail and telephone) or refused to be interviewed. Table 4-3* illustrates the numbers of available families and reasons for non-response. The details of the response to different parts of the questionnaires and the response rates of each sample home are shown in Table 4-4a*.

Because there were a substantial numbers of non-responders, responders and non-responders were compared where information was available. Elderly patients were divided into these two groups (families who were responders or non-responders) and compared in terms of their characteristics (age, gender, marital

status, educational level, need factors…etc.). No significant differences between the response and non-response groups were found ($p>0.05$) (Table 4-4b*). However, there was no easy way to compare non-responding families. It was not possible to find out if there was any difference between them.

All 12 proprietors (100%) of the sample nursing homes were interviewed about their views towards the nursing home industry in Taiwan.

4.4 QUESTIONNAIRE DESIGN

The questionnaires for the research were mainly divided to two parts: supply side and demand side (see Appendix B). The first one was to establish information about the supply of nursing homes. General information for each home about the staff, the home and its operation was sought from the proprietors. The focus of the second one was to help establish the demand. It asked for specific details about individual patients and their carers, including the circumstances of admission, informal care, reasons for admission, who made the nursing home entry decision and the payment…etc..

In order to increase the validity of the questionnaires, some of the questions were either the same or similar to those used in the following:

1. Challis, L. and Bartlett, H. (1987), *Old and Ill*, Centre for the Analysis of Social Policy, University of Bath. (Basic information about the nursing home)
2. Bartlett, H. and Snell, M. (1988), *Charging in the private nursing home industry*, Bath Social Policy Papers, University of Bath. (Charge, standard of fees)
3. Bartlett, H. (1993), *Nursing Homes for Elderly People: questions of quality and policy*, Reading, UK: Harwood Academic. (Experiences and problems in running a home)
4. Tinker, A. et al. (1995), *Difficult-to-let: sheltered housing*, London: HMSO. (Questionnaires obtained direct from the researchers) (Patient's basic information)
5. Williams, E.I. et al. (1992), A Study of Resident Dependency in Nottingham Nursing Homes, Department of General Practice, The Medical School, Queen's Medical Centre, Nottingham. (The dependency level: JUSSR)

6. Allen, I. et al. (1992), *Elderly people: Choice, Participation, and Satisfaction*, Policy Studies Institute, London. (Patient's choice, discussion and control)
7. Gonyea, J. G. (1987), The Family and Dependency: Factors Associated with Institutional Decision-Making, Journal of Gerontological Social Work, Vol.10, pp. 61-77. (Family/Government obligation)
8. Kraus et al. (1976), Elderly applicants to long-term care institutions. II. The application process; placement and care needs, Journal of the American Geriatric Society, Vol. 24, No. 4, pp. 165-172. (Reasons for nursing home entry; why this home)
9. Morris, et al. (1988), Inst-Risk II: An approach to forecasting relative risk of future institutional placement, Health Services Research, Vol. 23, No. 4, pp. 511-536. (Demographics, self-rated health, decision making)
10. Lin, L.C., Ou, M. and Wu, S. C. (1997), Perceived Family Function, Social Support and Emotion among Carers in Long-term Care, Nursing Research, R.O.C., Vol. 5, No. 1, pp. 77-87. (Preferences for long-term care)
11. McAuley, W. J. and Travis, S. S. (1997), Position of Influence in the Nursing Home Admission Decision, Research On Aging, Vol. 19, No. 1, pp.26-45. (The most influential person in the decision making process)
12. Greenberg, J. R., Monson, T., and Gesino, J. (1993), Development of University of Wisconsin Family Assessment Caregiver Scale (UW-FACS): A New Measure to Assess Families Caring for a Frail Elderly Member, Journal of Gerontological Social Work, Vol. 19(3/4), pp. 49-68. (Family Function Scale)

Questions included covered a variety of relevant issues in the questionnaires that were either identified in the extensive review of the research literature or were specially designed to cover issues about institutional placements. In the meantime, expert validity and test-retest reliability was applied to enhance its validity and reliability (see section 4.4.3).

4.4.1 The supply side

The supply side questionnaires (including Part I and II) were designed to investigate the nursing homes and their proprietors (Fig. 4-2*).

4.4.1.1 Part I---Basic information about the nursing home

Questionnaire part I was sent to the proprietor of the registered nursing home who consented to take part in the study and were chosen as a sample home. The basic information about the home was sought from this structured questionnaire with mainly closed questions. This part of the questionnaire included five sections of questions. They are: Section A--General details about the home; Section B--Ownership and staffing; Section C--The patients; Section D--Publicity and Referrals; and Section E--Facilities, Medical and Health Care. This first questionnaire contained 28 questions and was filled in first by one of the nursing staff. Her name was given on the questionnaire in case further confirmation and contact was needed.

4.4.1.2 Part II---The proprietor's interview

The proprietor of each sample home was interviewed after getting a broad picture of the homes from the questionnaire part I. The questionnaire part II---proprietor's interview contained 8 questions and asked the proprietors about their background/experience, motives for investing/running the nursing home business, the business itself--loans, cost, setting-up, initial assistance, profit and fee strategy, the problems and impact from the National Health Insurance Scheme, and their views about the nursing home industry in Taiwan. Because it was thought that some might have complaints about the current regulations and long-term care system, some open-ended questions were inevitable. Through the interviews with the nursing home proprietors, it was expected that more problems or critical issues would be explored.

Interviews with the nursing home proprietors were conducted where possible. When this was not possible, either because the home was hospital-based, or when the home was a limited company, then the manager or officer-in-charge of the home was interviewed.

4.4.2 The demand side

The second questionnaire was designed to help examine the demand for nursing home care and the families' decision making process. The questionnaire was used for the patients and their carers/key families in nursing homes after the basic information

about the homes had been obtained. In terms of the patient profile, this questionnaire included three parts for each patient: Part A, B and C.

4.4.2.1 Part A---Basic information about the patients

This part was about the patients' basic information (completed by the nursing staff). The questions in this part included the basic characteristics of the patient; his/her source of admission; the length of stay; patients' physical and mental status; their main needs and problems, and their dependency level.

4.4.2.2 Part B---The patients

Part B was the patients' questionnaire (completed through an interview with lucid patients in the sample). This questionnaire included information related to their demographic characteristics, for example, age, marital status, gender, educational level, ...etc.. This was used to double check with Part A---patient's information given by the proprietors in which any error could be clarified by further checking the patients' charts and helped with identifying the lucid patients. The background picture was also assembled concerning the patient's situation prior to admission, including living arrangement, household composition and support at home. This structured questionnaire aimed at getting common data in order to construct a profile of the patients in the nursing homes. The interview centered around the decision-making process prior to nursing home admission. These questions were related to the event/crisis which triggered the nursing home entry; who was the influential person involved in the decision-making process; who was the person who arranged the admission and the patients' view towards nursing home entry. Sources of finance were compiled in the schedule and placed towards the end of the interview because of their sensitive nature.

The main source of information concerning the pattern of admission came from the patients themselves. If the patient was lucid and able to communicate, he/she would be interviewed. If the patient was confused or unable to communicate due to reasons mentioned previously, then only part A---patient information could be obtained from the staff and part C---from their carers/key families as proxies.

From the experience of the previous literature and the pilot study, some unstructured questions seemed also necessary to help the interviewer pick up more sensitive material such as acceptance or resentment felt by elderly people towards their situation. Therefore, some open ended questions were also developed prior to the interviews.

4.4.2.3 Part C---The carers/key families

Part C is the carers/key families questionnaire. As already stated, the interviewer contacted each sample patient's carer or key family (the family member who was intimately involved in the decision making/placement process) and then interviews took place where they preferred (mainly in the nursing homes). The questions in this part comprised the basic characteristics about the carers and their families; similar questions about the patients' nursing home entry as were asked of the patients and the carer's view towards nursing home entry of their frail elderly relatives. Carers were also asked to give their perspective on the elderly person's life prior to admission together with the event and person they saw as influential in the process. Their role in the admission process was explored as well as their perspectives and personal thoughts in the process. Their family function was also measured with the Wisconsin Family Assessment Caregiver Scale (UW-FACS) if the carer/key family was the elderly patient's spouse or adult child. Finally, the carers/key families financial status were also investigated.

Although a structured questionnaire was administered, quite a few open ended questions were asked about their situation and family. These questions explored the relationships and context of the elderly people and their family members around the time and process of the decision making. Several questions duplicated topics on the patients schedule in order to complement the patients' information. In some cases, the information had to come from the families and nursing staff.

The time for interviewing an elderly patient in the nursing home last for approximately 30 minutes, 40 minutes for interviews of their carers/key families and it ranged from 40 minutes to one hour for interviews with each proprietor. The structure of questionnaires in the research was summarized in Fig. 4-2*.

4.4.3 Validity and Reliability check

Validity is concerned with "the degree of fit between a construct and indicators of it" (Neuman, 1997, pp. 141). Face validity, content validity, criterion validity and construct validity are the four types of validity. In this study, the questionnaires' content validity had been checked in the first place by reviewing the literature and identifying the major area. Face validity was also helped with the experience in the pilot study in that some irrelevant questions were excluded. Expert validity was applied in the pilot stage by peer reviews of the questionnaire drafts.

In terms of the reliability, it means that "the information provided by indicators (e.g., a questionnaire) does not vary as a result of the characteristics of the indicator, instrument, or measurement device itself" (Neuman, 1997, pp. 138). The test-retest reliability was checked in the pilot study among 5 elderly patients and their families respectively within one month. Of these, answers towards main questions were identical. In addition, all the interviews in the study had been conducted by the researcher so that there was no problem like variation between different interviewers. It avoided the possibility of bias introduced by different interviewers.

4.5 MEASURES USED IN THE STUDY

4.5.1 Dependency levels

Many studies assess the dependency of old people in institutions and several scales have been designed for the purpose of assessing dependency in care settings.

A measure of dependency was used in this research, based on the JUSSR (Sheffield Joint Unit for Social Service Research) Assessment Schedules which assessed the ability of residents to function independently of help from others. This scale was developed by Tim Booth et al. in 1980s and has been widely adopted in many studies, especially on the residents in institutions (Booth, T. et al., 1982a, 1982b; Booth, T. and Phillips, D., 1987; Booth, T., 1990; Williams, E. D., et al., 1992; Carter, H. et al., 1992; Phillips, J., 1992). Dependency has been defined in chapter 2 (see 2.2.2.1 definition). The concept of dependency is used to refer to aspects of the relationship between individual residents, their carers and the environment in which they live (Booth, T. et al., 1982a). In other words, a patient's

dependency level results from the interaction of physical disabilities and mental and social functioning with the environment created by the home (Williams et al., 1992). Fundamental to the concept of dependency is its reference to a social relationship (Wilkin, 1987; Wilkin &Thompson, 1989).

The Sheffield scale has been designed to give an overall view of dependency levels and functions by obtaining the views of care staff on each elderly person's skills and abilities in a range of daily living activities such as personal self-care, mobility, continence, communication, cognitive function, behavior and sociability. To try to determine a global view of dependency levels, which can be used for comparative purposes, the authors of the questionnaire have also developed an overall dependency classification using profiles derived from the questionnaire (Wilkin &Thompson, 1989).

The Sheffield questionnaire is designed to be completed by untrained care personnel. For the hospital patients the questionnaires can be completed by senior ward nursing staff, while in the residential and nursing homes they can be completed by senior home care staff. The information is in three main categories: (Williams et al., 1992)

1. Self Care--including mobility, continence, washing, dressing, bathing and feeding.
2. Orientation--including ability to communicate, level of confusion, awareness and understanding, tendency to wander and be noisy or aggressive.
3. Social Integration--including ability to make relationships, willingness to help, and ability to socialize and /or go out.

The advantages of JUSSR (Sheffield Joint Unit for Social Service Research) Assessment Schedules were reported as follows: (Carter, H. et al, 1992)

- Designed to assess broad changes in the characteristics of the population in residential homes for elderly people and changes in the behaviour of the individual residents (for institutional use).
- Can be completed by officers-in-charge of residential homes. It does not require an experienced interviewer.
- Respondents are simply asked to tick the description which most accurately describes each resident, rather than making any judgment about what the individual is able to do.

- Dependency levels and functions can be assessed by obtaining the views of care staff.
- Economical.

These advantages fulfilled the requirements of the study and in addition, to avoid measuring only a narrow range of functional disability by the Activities of Daily Living (ADLs) (see 4.5.2), the JUSSR Assessment Schedule with its scales adapted by Williams et al. (1992) has been used in the research. It is the first time it has been used as an indicator for elderly people in Taiwan.

In terms of technical checks of this JUSSR, Booth et al. (1982a) claimed that this questionnaire appears to be more discriminating in particular at the top end of the dependency range. The authors examined the concurrent validity by comparing the results from their schedule with those obtained from five other similar schedules. They found that "they correlate only weakly". However, the criteria scales were no more correlated with each other than with the JUSSR scale (Wilkin and Thompson, 1989). According to Wilkin and Thompson (1989), possible explanations were as follows: first, the different scales may be more sensitive over different parts of the dependency range; and second, although the scales are using similar terminology, they may be in fact assessing slightly different aspects of the residents' functioning. Test-retest checks and inter-rater checks were done for reliability checks of this questionnaire. It was reported that the staff were consistent in their ratings, achieving 95% agreement between first and second assessment. Levels of agreement in inter-rater checks were predictably lower than for the test-retest checks (95% agreement), though an overall satisfactory correlation was found (Booth, T. et al., 1982a). The level of agreement between the raters was lowest for the more "subjective" items on the schedule, such as sociability, behaviour and memory (Wilkin and Thompson, 1989). In summary, it has been previously used in nursing home settings as a reliable and valid measurement of assessing dependency.

4.5.2 ADL index

The Activities of Daily Living (ADL) index is one of the best known and oldest of the disability scales and was developed by Katz et al.. This index was designed to describe the states of elderly patients for clinical purposes (Bowling, A., 1997). This

index consists of a rating form that can be completed by a therapist or other observer. Contents of it include bathing, dressing, continence, feeding and locomotion. In each of the activities assessed the patient could be rated by the observer on a three-point scale of independence for each activity (Bowling, A., 1997).

Although this measurement is used worldwide, there is little evidence of its validity and reliability. According to Bowling (1997), this index will be used less in the future following the development of more sensitive scales such as the Barthel scale and the AIMS2 (Arthritis Impact Measurement Scales) in the future.

This index was chosen because of its wide use in Taiwan including the SSRSC (1996) survey. In this research, the ADL index of the patients in nursing homes was also used in order to compare them with those of elderly people in the community by presenting how many items' difficulty in performing ADLs among them.

4.5.3 Family function scale

Though numerous studies have called attention to the fact that caring for an elderly family member is a "family affair", measurement has focused on the level of the individual carer rather than the family as a system (Greenberg, 1993). For example, the most widely used measure of family burden is the Zarit et al. (1980) carer burden scale. This scale focuses on the intra- and inter-personal experiences of the carer, and not the functioning of the family as a caregiving unit.

A 21-item scale developed by Greenberg, et al. (1993) to assess the functioning of families as caregiving systems, University of Wisconsin Family Assessment Caregiving Scale (UW-FACS), can fill this gap in family gerontology (Greenberg, et al., 1993). It is a reliable and valid measure that assesses caregiving at the family system level. This family functioning instrument measures the properties of the family as a caregiving system in contrast to the usual focus on the personal experience of the individual carer. This concept coincides with that of Taiwan's traditional family values (Lin, 1997) and this scale had been translated and used by one researcher (Lin, 1997) in Taiwan. According to Greenberg, et al. (1993), although this family measure has its limitations and should be viewed only one component of a total client assessment, the instrument has proved useful as a tool to train practitioners in family geriatric

assessment, and as a standardized protocol for collecting information on families as caregiving systems.

Greenberg (1993) reported that five aspects of family functioning relevant to the process of caring for an elderly relative were identified: validation, family of origin, problem solving, roles, and boundaries. *Validation* refers to family behavior that acknowledges, supports, and appreciates the primary carer's role in the family. Brody et al. (1989) found that carers felt rewarded when they perceived that other family members understood their efforts in caring for the elderly person. It is the carer's perception of family support rather than the actual level of support that emerges as a critical variable predicting lower levels of burden. Gwyther and Blazer (1984) reported that adult children who felt deprived of parental care in childhood express more anger around caregiving than those who felt that their parents were available for them during their childhood. Since caregiving often reactivates unresolved *family of origin* issues, and since feelings about past relationships influence the experience of burden, family of origin experiences assume a central role when assessing family caregiving and its potential strains and burdens (Greenberg, 1993). *Problem solving* refers to the family's ability to resolve problems associated with caregiving. Many families have difficulties in identifying and discussing problems and exploring alternative solutions. Again, carers experience less burden when other family members are involved (Brody et al., 1989). Among others, Greenberg (1993) reported that *role* refers to the caregiving tasks that family members are required to perform and *boundary* issues revolve around the inclusion or exclusion of family members and formal supports as participants in the family caregiving system.

The English version of the family function scale was given and authorized by Dr. Greenberg (see Appendix C-IV) for use in the carers' interview in this research as an indicator of the functioning of families as caregiving systems in Taiwan. Chinese translations of this scale has been checked by Dr. Lin, the researcher first adapted this scale in Taiwan, for validity. Cronbach's alpha has been checked for internal consistency of reliability in the pilot study (Cronbach's alpha = 0.82, n=35).

4.6 DATA COLLECTION AND STATISTICAL ANALYSIS

The data collecting procedure was divided into three stages as mentioned previously. The proprietors of the 12 sample nursing homes were interviewed first regarding the background information of the nursing homes and then for their views towards the nursing home industry. Names of elderly patients in these nursing homes and their key families were then given to the interviewer. After contacting each person individually and gaining their consent, the interviews were held at a mutually convenient meeting time.

The data collection method here involved the personal interviews and this was combined with postal questionnaires in some cases for the carers. Data management included data coding and entry, data collating and checking. In terms of the open ended questions, the interviewer (author) analyzed them by first, transferring the answers into short notes relevant to the decision-making process immediately after each interview and identifying observations that related to each content area. Second, the interviewer divided each answer into categories. Core categories and central concepts were extracted from the data by comparing interviews and picking out the central related themes that appeared frequently. Next, the category lists of each interview were compared and merged to confirm the fit of categories. The data thus has been expanded from the individual level of the respondents' experience to the general level as it appeared to the analyst (McCracken, 1988). The results were presented quantitatively or in a descriptive manner as appropriate.

The Statistical Software Package---SPSS (version 9.0) was used to analyze the quantitative data collected in this study. In terms of risk of institutionalization, nursing home patients data were described and compared with the elderly people in the community by using the community data set of the Social Status Report of Senior Citizens (SSRSC, 1996) to explore the possible risk factors associated with nursing home admission in Taiwan. Independent variables included in the comparisons were: age, gender, marital status, educational level, financial resources, ADLs and certain diagnosis of chronic diseases which were used and available in SSRSC, 1996. Frequency distributions with Chi-square (χ^2) tests were used to examine any possible differences between nursing home patients and elderly people in the community. In order to control for possible confounding factors, multiple logistic regression model

was used to assess the effects of a single variable on the risk of institutionalization while controlling for other variables. Regarding the decision making process, interview data from the elderly patients and their families in nursing homes was also described and collated respectively. The possible characteristics that influenced the families' view towards any alternative other than nursing home entry when the decision was made were also explored by using bivariate and multivariate analysis.

The type of statistical technique used here is dictated by the nature of the dependent variable. In this study, the dependent variables are dichotomous. Logistic regression predicts the logarithm of the odds of being in one state of the dependent variable versus another (e.g., the log odds of being "in nursing home" versus "not in nursing home" or "there was alternative" versus "no alternative") in relation to a set of independent variables. Since the dependent and the independent variables are categorical (mostly dichotomous) variables, logistic regression appears to be the choice. Results from these models were presented in terms of odds ratio along with their 95% confidence intervals (Agresti, 1990).

4.7 THE PILOT STUDY

4.7.1 Pre-pilot

A preliminary investigation to assess the feasibility of the research design is important. A pre-pilot was taken place in may, 1997 with the help of the proprietor (who was also an associate professor in one nursing department in Taiwan) who allowed the researcher subsequently to hold the pilot study in that home. The pre-pilot involved interviewing one elderly patient and his family in the home and discuss the study design with the proprietor and one senior nurse. This information assisted the development of the questionnaires and research design.

4.7.2 Pilot

An exploratory pilot study was carried out from June to August of 1997 to clarify the problem for investigation. It was important to look at what was feasible

from a practical point of view and how efficiently the subject could be investigated in the field.

This was achieved by a case study approach: choosing one typical nursing home in a southern city of Taiwan. The pilot study took place in one nursing home in K city. This included 11 patients, 15 carers and 1 nursing home proprietor who were interviewed in depth. The main themes were teased out and clarified through a series of interviews.

From the content of these exploratory interviews, the questionnaires were modified and methods of interviewing investigated. Firstly, before the pilot study, the questions were put in what was thought to be a logical order but in the interviews, it was found that this was not always the case. Therefore, the order of the questions were slightly changed. Secondly, several open-ended questions were omitted because they were unlikely to be answered and tended to extend the patience of the elderly patients. For example, questions about the patients receiving any written introductions about the nursing homes and some questions about why something had not been done were ruled out either because these did not happen in Taiwan or because they offended the patients. However, additional issues were found and questions were added. The method of interviewing was also improved. For example, when talking with the patients, an easy topic was used to start the interviews. Timing was also important. For example, interviews should not be held when they cannot be completed in an hour such as ten minutes before lunch or when the patients were about to take a nap after lunch...etc..

The pilot study was carried out specifically to test the viability and practical feasibility of using several interview schedules and techniques, including a sampling framework and access to patients. The organization (time schedules, expenses) of the field work and collection and reporting of data was also evaluated at this stage.

A number of areas identified in the pilot study were included in the design of the main study. They may be summarized as follows:

Supply side

1. The proprietors' views about investing and running a nursing home
2. The pricing policy and charge standard of the nursing homes
3. The impact of the government policy involved

4. Open questions were devised to yield more information

Demand side

1. Living arrangement and household composition of the patient prior to admission
2. The dependency level of the patient and the event/crisis in the process leading to admission
3. Most influential people involved in the process (including who suggested it initially? who made the decision? and who arranged this admission?)
4. Reflections on the decision making process by the patient and the family
5. Financial means relevant to the admission process
6. The carers' view and their family function
7. One sheet questions about the characteristics of the patients needed to be attached to the carer/key family's interview questionnaire as proxies.
8. Individual variation existed among some "why" questions that made the close questions with rigid multiple alternatives confusing to choose the answer. Open questions were devised in order to yield more descriptive information.

Findings of the pilot study were shown in Appendix D. In conclusion, the pilot study was useful in that helped to refine the research design, the questionnaires and the data collection method.

Table 4-2. Sample available for study and reason for non-response of patients in nursing homes

	No.	Note
Total samples	378	
Less access refused	287	See *Note 1*
Total available for study	91	
Less non-response	23	See *Note 2*
Interviews	**68**	Response rate: 75%

Note:

1. These patients were usually too frail or confused and unable to be interviewed. They were identified by the home owners and their status was checked by the researcher.
2. Reasons for non-response:

Patient refused (including the reason of already interviewing the carer/family)	5
Patients had left or was leaving when the interview was conducted	3
Family refused	6
Patients were re-hospitalized after the 3rd visit	4
Aborted interview (including sometimes confused patients)	5
total	23

Table 4-3. Sample available for study and reason for non-response of families

	No.	Note
Total samples	378	
Less access refused	112	See *Note 3*
Sample available for study	266	
Less non-response	115	See *Note 4*
Plus	11	See *Note 3*
Interviews	**162**	Response rate: 61%

Note:

3. In the case of the 112 families, information (address or telephone) was unavailable because two home owners refused to release the detail of the families. They regarded these as confidential and refused to release them. Their explanation were that families were quite sensitive on this matter and the homes had to avoid anything which might damage the relationship between the home and the families. In these cases, only 11 key families who were met in nursing homes and willing to participate could be interviewed.
4. Reasons for non-response:

Family refused	26
Patients refused access to families they named	5
Families could not be reached (non-response by both mail and telephone/lived abroad)	80
Families' elderly relative (the patient) had left/was leaving the nursing home when the interview was conducted	4
total	115

Table 4-4a. Details of the questionnaires been completed and the respond rate in each sample nursing home

Homes	Numbers of patients	Questionnaire Part A	*Respond rate*	Sample available for study: the patients	Questionnaire Part B	*Respond rate*	Sample available for study: the families	Questionnaire Part C	*Respond rate*
TN	46	46	100%	12	10	83%	46	31	67%
KL	30	30	100%	3	2	67%	30	19	63%
TC	35	35	100%	9	7	78%	35	22	63%
MC*	63	63	100%	11	8	73%	0	3	---
SJ*	49	49	100%	10	8	80%	0	8	---
PL	10	10	100%	1	0	---	10	4	40%
WK	42	42	100%	12	10	83%	42	22	52%
GN	42	42	100%	11	10	91%	42	24	57%
YT	16	16	100%	5	3	60%	16	7	44%
RH	24	24	100%	8	5	63%	24	13	54%
ZF	13	13	100%	7	5	71%	13	6	46%
RS	8	8	100%	2	0	---	8	3	38%
TOTAL	378	**378**	100%	91	**68**	**75%**	266	**162**	**61%**

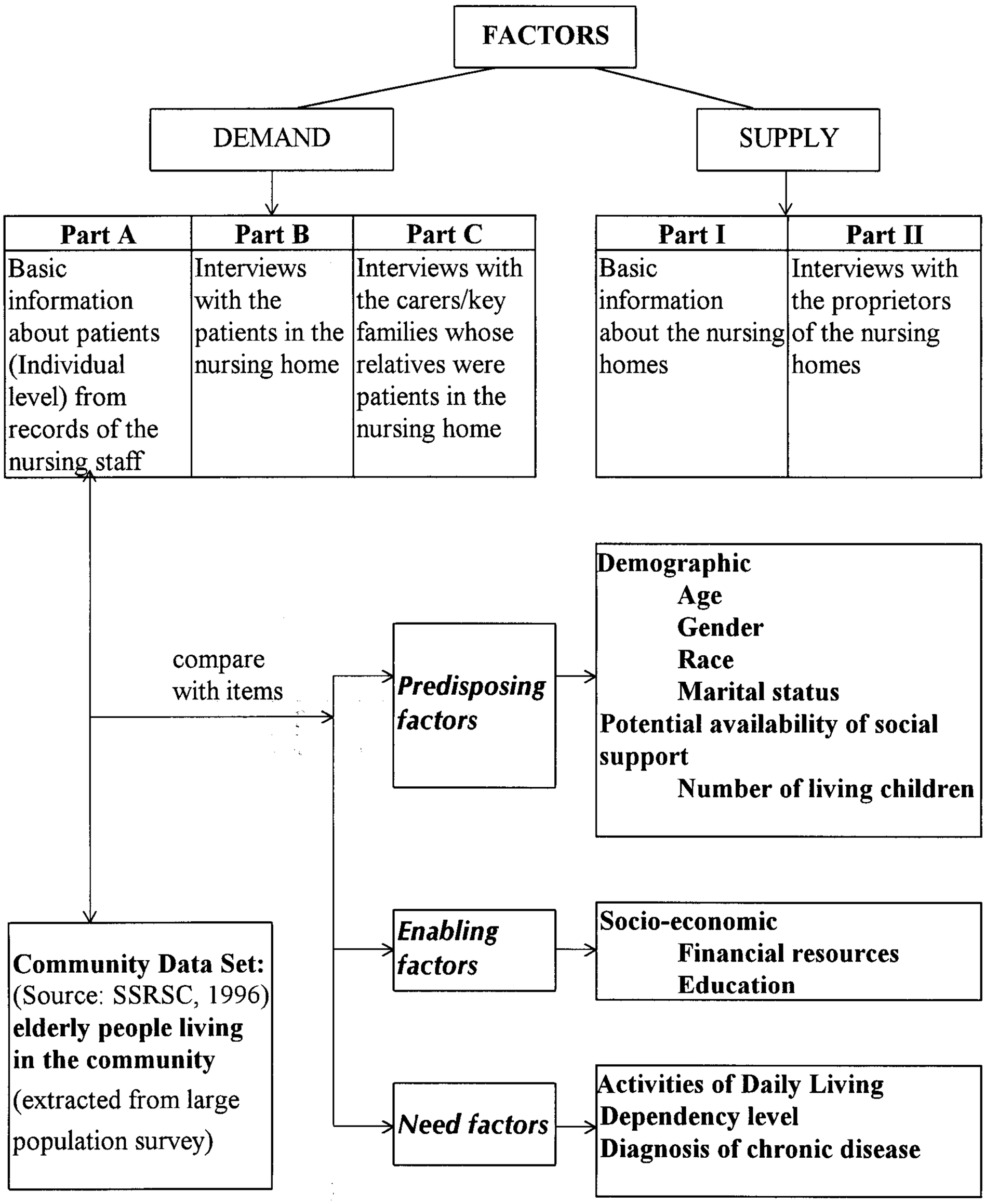
Ps. * Sample homes refused to release the addresses/telephones of the families.
source: Author's survey, 1998.

Table 4-4b. The characteristics of nursing home patients between response and non-response of their families

Variables (the characteristics of patients)	*Response*	*Non-response*	Total	Note
Age	162	216	378	Mann-Whitney Test, Normalized Z= -0.901; p>0.05
Gender				
Female	105	135	240	
Male	57	81	138	χ^2=0.214; df=1; p>0.05
Marital status				
Single/Separated/Divorced	3	5	8	
Married	78	84	162	
Widow(er)ed	80	124	204	χ^2=3.041; df=2; p>0.05
Educational levels				
Elementary and below	114	163	277	
Junior high	9	12	22	
Senior high	10	11	21	
College and over	16	6	32	χ^2=1.168; df=3; p>0.05
ADL				
0-3 items	33	50	83	
4 and over	129	166	295	χ^2=0.417; df=1; p>0.05
JUSSR				
Independent And low dependent	13	23	36	
Medium dependent	30	45	75	
High dependent	119	148	267	χ^2=1.239; df=2; p>0.05
Tube insertion				
Yes	64	78	142	
No	98	137	235	χ^2=0.410; df=1; p>0.05

Ps. The sum of each categories may not be exactly the same due to missing data.

Fig. 4-2. The structure of questionnaires in the research



CHAPTER 5

SUPPLY SIDE --THE HOMES AND THEIR PROPRIETORS

The provision of nursing homes is important as one of the factors influencing the demand for nursing home care. This chapter presents the research findings about the supply of nursing homes in Taiwan. It starts with an examination of the government framework for long-term care especially nursing homes including policies, grants, supervision and reimbursement. It then examines the background data about the 12 sample registered nursing homes and their proprietors. This comes from the survey of the homes and interviews with the proprietors. It looks first at the homes i.e., size and structure, characteristics of the homes, charges, the medical service and staff. It concludes with the views of the nursing home proprietors in order to consider the effect of this on the supply of nursing homes in Taiwan.

5.1 GOVERNMENT INTERVENTION

5.1.1 Government policy and grants

Health care for elderly people is one of the central concerns of policy in the Department of Health (DOH), Taiwan. These policies include health promotion and prevention, emergency medical care, acute health care, rehabilitation and continuing care. They are based on the nation-wide plans for a Medical Care Network to be run by one centre in each area. More attention has recently focused on continuing care/ long-term care because of the critical needs of the rapidly aging population in Taiwan. Elderly people aged 65 and over represented 8.2% (1,810,000 elderly people) by the end of 1998 and this percentage is projected to increase to 14% in 2020 and 20% in 2031 (DOH, 1998).

Nursing homes in Taiwan are new and the idea mainly comes from the US and Western countries. In the past, most health care services for patients have taken

place in hospitals due to its relatively low cost compared with Western countries. Partly because of the population ageing and also the increasing financial load of the health care insurance, in 1995, the DOH of the Taiwan government formally announced a 15-year plan for long term care services after the launch of the National Health Insurance Scheme in May, 1995. This plan includes developing long-term care facilities (e.g. chronic hospitals, nursing homes, day care centers, hospices, community nursing and home care services ...etc.) to form a web of long-term care in Taiwan. The aim is to establish a comprehensive continuing care delivery system, a comprehensive referral network and quality assurance system and a sound financial and payment system. The aim is also to educate the public about an individual's responsibility and ability for self-care.

According to the DOH (Taiwan), approximately 106,211 people, of whom, about 95,590 were elderly, needed long-term care in 1997. According to the estimates in the 15-year long-term care plan, approximately 30% of the people who need long-term care may need the institutional care and this has been set as a service target. Therefore, in Taiwan, there was still a 17,500 beds' shortage (55%) of institutional care in 1997. In terms of the community care (i.e., non-institutional care including home care, day care, respite care ...etc.), approximately 74,350 people were estimated to need it. The service target is for 70% of the people who need long-term care services to receive community care in 1997. Research by DOH (1998), found that, currently, community care services in Taiwan can only cater for 9,900 people, so there is still a shortfall for 64,450 people (87%). Under the guidance of the latest Head of DOH, a three-year short-term strategy has been launched (from July, 1998 to June, 2001) to fulfill the basic requirements of long-term care facilities in Taiwan (DOH, 1998). Summarizing this three-year long-term care plan, the following key objectives are described in the next sections (principles; quantitative goals; content and grants).

5.1.1.1 Principles of the plan

I. Focus on home care programs and the maintenance of family roles.

II. Integrate the long-term care system (vertically and horizontally) and make it compulsory for professionals to undertake certain activities such as

assessment for a hospital discharge plan.

III. Encourage the establishment of multi-functional facilities and ensure continuity of care.

IV. Ensure quality of care, promote decency and quality of life for elderly people.

V. Build up the concept of "health for all" and emphasize the responsibilities of both individuals and society.

5.1.1.2 Quantitative goals

I. Home care:

The home care program under supervision of DOH in Taiwan, as explained in chapter 1, is that visiting nurses go to elderly people's own homes and provide nursing care once a week or more frequently depending on the elderly individual's needs. Over the next three years, the DOH estimates that the number of people receiving home care is planned to rise from 7,700 persons to 18,480 persons (see Table 5-1).

II. Nursing home care:

Nursing home beds in Taiwan are planned to rise from 6.4 beds per 10,000 elderly people in 1998 and reach the target rate of 74.15 beds per 10,000 elderly people in 2001 by encouraging both the public and private sectors to establish nursing homes in each county (Table 5-2).

Table 5-1. Planned increase in numbers of people receiving home care in the three-year long-term care plan, Taiwan

YEAR	SERVICE NUMBERS (persons)	GROWTH RATE/per year
End of 1997	4,818	28%
June of 1998	5,500	---
Estimate in 1999	7,700	40%
Estimate in 2000	11,500	50%
Estimate in 2001	18,480	60%

Ps. Service numbers from 1999 to 2001 are the estimates of the service numbers.
Source: DOH, 1998.

Table 5-2. Planned increase in numbers of beds in nursing homes in the three-year long-term care plan, Taiwan

YEAR	Registered beds (11,244 beds) Opened	Increasing numbers of nursing home beds in this plan	Accumulating numbers	TARGET (nursing home beds/per 10,000 elderly people in Taiwan)
1998	1,130	--	1,130	6.40
1999	2,000	1,800	4,930	27.12
2000	2,500	1,900	9,330	49.92
2001	3,000	1,900	14,230	74.15
Total	8,630	5,600	14,230	74.15

Source: DOH, 1998

5.1.1.3 Content

I. Establish an integrated long-term care service network: including setting up a 'single entry point' in local health authorities; joint committees and multi-disciplinary teams.

II. Establish nation-wide institutional care facilities: including the establishment of nursing homes in every county (in both the public and private sectors); promote a multi-functional service model (e.g., to include services such as day care and respite care) in institutions; update 'the guideline for the establishment of registered nursing homes' in order to match practical needs and stimulate willingness to run nursing home businesses.

III. Expand community care facilities: supervise the development of long-term care services in each locality including home care, day care and respite care services in institutions; encourage the setting up of 'social support teams for carers' and long-term care consultation centers in local hospital-based public nursing homes.

IV. Enhance the training of long-term care professionals.

V. Increase the quality of care in the long-term care system.

VI. Increase understanding of long-term care by the public.

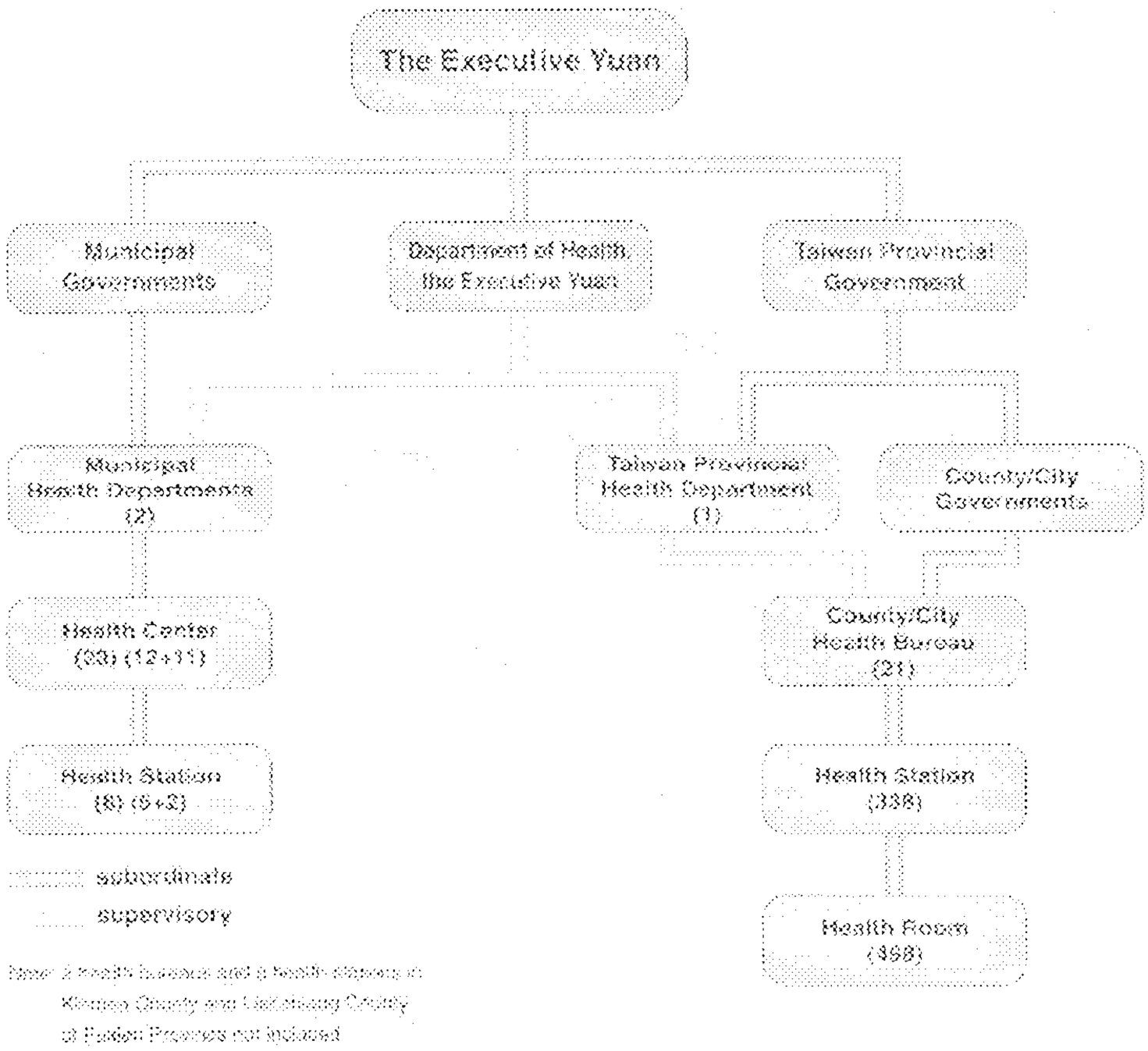
VII. Develop the financial support for long-term care: including studying the possibilities of covering long-term care in a National Health Insurance Scheme and a nation-wide state pension system.

5.1.1.4 Grants

There are four levels of organizations for health in Taiwan. These are national, city and province, county and city, and township (Fig. 5-1). At the national level, the Department of Health (DOH) is the highest health administration. It has five technical bureaus, one office and five subordinate agencies: the National Institute of Preventive Medicine, the National Laboratories of Foods and Drugs, the Narcotics Bureau, the National Quarantine Service, and the Central Bureau of National Health Insurance (established on 29 December 1993). The Department plans, supervises and coordinates health programs throughout the country. At the grass-roots level, one health station is set up in each township. In the remote and mountain areas, health rooms are set up. To upgrade the quality of primary health care and to make health services more available to the people, group practice centers have been set up in some remote areas since July, 1983 (DOH, 1998).

Fig. 5-1. The Organization of Health Agencies in Taiwan Area

Fig. 5-1 Health Organization in ROC



Source: DOH, Taiwan, 1998

Therefore, government health and medical care expenditure includes those governmental agencies and medical care institutions at four levels. To improve social welfare, health and medical expenditure has increased annually in recent years. Table 5-3 gives the details of the percentage of public expenditure in the total health and medical expenditure from 1992 to 1996. It shows that public expenditure increased from 55.4% in 1992 to 64.3% in 1996 comparing with the percentage paid by individuals which has dropped annually. In terms of the total health and medical care expenditure of government at all levels, it was NT. 45 billion 960 million (approximately US$ 1.7 billion) (DOH, 1997) in the fiscal year 1994 (July 1993-June 1994). The details of the government health and medical care expenditure at all levels in fiscal year, 1994 is shown in Fig. 5-2*.

Table 5-3. Percentages of the public and private health and medical care expenditure in the fiscal year 1992 to 1996

	1992	1993	1994	1995	1996
Public expenditure	55.4%	54.8%	54.4%	63.8%	64.3%
Health Insurance	40.0%	39.7%	40.5%	52.4%	53.9%
Public health subsidy	5.2%	4.4%	3.9%	3.4%	3.3%
Public hospitals subsidy	10.2%	10.7%	10.0%	8.0%	7.0%
Private expenditure	44.6%	45.2%	45.6%	36.2%	35.7%
TOTAL (health and medical expenditure)	100%	100%	100%	100%	100%

Source: The Central Bureau of National Health Insurance, 1998.

Long-term care expenditure in Taiwan was not shown separately from the whole state health and medical care expenditure when the research was conducted. However, it is expected that a higher proportion of the budget (of NT. 45 billions in the fiscal year 1994) will be spent on long-term care. Apart from the subsidization for low income families in the community under the MOI budget system, substantial grants from DOH have been mainly focused on the establishment of long-term care institutions in recent years. Under the supervision of DOH, Taiwan, for example, the nursing home subsidization method by the Medical Development Foundation was announced in January, 1995 to encourage the establishment of the hospital-based nursing homes (Table 5-4*). For last three years, freestanding nursing homes have

also been able to receive subsidies from DOH on the basis of NT. 100,000 per nursing home bed.

5.1.2 Government supervision

Long-term care covers all forms of social and health care for elderly people who are unable to look after themselves without some degree of support. There have been a variety of social welfare policies run by the Ministry of Interior (MOI) as mentioned before, which have mainly focused on low income elderly people. The provision of long-term care including home (visiting nursing) care, day care, and nursing home care in Taiwan, were launched by DOH in 1995. Because this long-term care system started less than four years ago, the provision of these forms of long-term care remains mostly private and unregulated.

The development of long-term care in Taiwan is currently supervised by two different administration systems (DOH and MOI) and accordingly there are different laws. Although MOI has mainly focused on the social care of elderly people, while DOH aims to develop a long-term health care system, the government supervision from two different systems raises concern. Because of the hybrid nature of long-term care, the related investments under two different systems may duplicate the resources and distribute them unevenly. Usually, this is one of the important reasons that leads to less efficiency and inequalities. Integrating the DOH and the MOI for long-term care was regarded as critical in the 15-year long-term care plan (DOH, 1995). This will also inevitably influence the relevant financial arrangements and the reimbursement polices.

Although good supervision does not necessarily ensure good quality of care, a supervisory system may play an important role in improving the quality of care provided. As stated in the background information in chapter 1, in terms of institutional care, currently only the registered residential homes and nursing homes are under government supervision and quality control. In the acute care system, a discharge plan from hospital is not provided for every patient. It is not yet compulsory for hospitals to discharge their patients with a plan which indicates the suitable subsequent care and prognosis for the patients. Some patients receive only suggestions about where to go after discharge. Until now, government guidelines

about nursing homes only cover buildings, facilities, equipment and staff/patient ratios. In more detail, the DOH guideline (published in 1994) gave rules for the setting up of nursing homes which included the space, staff levels, facilities needed, and specific requests for a public-use building including air conditioning, fire precautions and the safety system.

Regarding quality assurance, the nursing home guidelines state that the registered nursing home has to affiliate with a neighboring hospital which is registered by the DOH. Between them, a referral contract must be clearly signed and the nursing home must refer their patients to the hospital when necessary. Under the guidelines, a new patient in the nursing home should be checked by a doctor within 48 hours after admission and the doctor has to check the patients and renew any treatment at least every month. The supervision of nursing staff including their training and the nursing care has started to be developed recently following the experience of Western countries. It is believed that a nursing home inspection system will be in place in the near future.

Apart from the government supervision, there are also local organizations supported by professionals involved in the long-term care system. For example, the long-term care professional association of Taiwan, R.O.C. was created in 28th, August, 1993. This non-profit association aims to develop long-term care improvements in Taiwan; protect the benefits and rights of long-term care professionals; assure the quality of long-term care and perform related activities and services.

5.1.3 Reimbursement policies

A worry is that the proposed reimbursement policies (i.e., a level of subsidization) will lead to excessive demand. This has been one of the reasons why nursing home care in Taiwan remained outside the scope of the NHI. As stated before, elderly people who are in a residential home do receive a subsidy but only people with low incomes can benefit from this at the moment. Basically, this is not received directly by the older person but goes to the proprietors. The current reimbursement polices which are relevant to long-term care are as follows:

1. *In terms of the subsidization from the National Health Insurance Scheme:*

- Numbers of continuing care beds in chronic hospitals are to be expanded and covered by the National Health Insurance (NHI) Scheme.
- Home (visiting nursing) care has been covered by NHI Scheme since 1995. It means that elderly people once accepted by the home care program can receive free home care services including regular nursing care by the visiting nurse each month and a visit by the doctor when necessary.
- Similar nursing care in the registered nursing homes that are covered by NHI in the home care program can also be reimbursed from the NHI (the DOH dispatch, 05/11/ 1996).

2. *In terms of the subsidization from the Ministry of Interior (MOI):*

- To expand social welfare for disabled people, the nursing home fees can also be subsidized by MOI for those who are qualified for the subsidization paper for the physically and mentally disabled citizens with low income:

a) Listed low income families: the person living in nursing home is qualified to receive a subsidy for all of the nursing home fee.

b) Low income families whose family income does not exceed twice the monthly minimum expenses: the person living in the nursing home is qualified to receive 3/4 subsidization of the nursing home fee.

c) Low income family whose family income does not exceed 3 times but more than twice the monthly minimum expenses: the person living in the nursing home is qualified to receive 1/2 subsidization of the nursing home fee.

d) Low income families whose family income exceed 3 times the minimum expenses: the person who living in the nursing home is qualified to receive 1/4 subsidization of the nursing home fee.

- Residential homes under the supervision of MOI can get subsidies from MOI for accommodating low income people based on the standard of the low income subsidization method (i.e., low income people can receive a subsidy to live in the residential home).
- Domestic services, mainly in the form of home helps and someone to provide company for elderly people who live alone, are provided free under the supervision of MOI. This service is often provided with the help from local volunteer groups. This is currently only popular with low income people.

The current system in Taiwan is quite different from the majority of nursing homes in Western countries where the major source of nursing home income is third-party payment, often from the government. At present, once an elderly person enters a nursing home, their financial problems are supposed to be sorted out by themselves or by their families (except for handicapped people with a low income as noted above). Most of the nursing home services remain outside the scope of NHI and a proposal to change this is unlikely by the government in the short term. Currently, the monthly cost for a native private hired-helper is most expensive (about NT. 60,000) because the care is based on one to one. Foreign helpers coming from South-Eastern Asia are, therefore, popular and their basic salary is about NT. 15,000 per month. A place in a nursing home is about NT. 30,000-50,000 and a place in a residential home is about NT. 20,000-30,000 per month. However, prices in the market for these services vary because a lot of unregistered institutions are competing for patients and may keep prices low. Registered homes then find it difficult to compete in terms of price.

5.1.4 Finance

The content and scope of 'social welfare' in each country worldwide may be different due to the differences in politic, economic and social environment, moreover, historical experience. In the general budget account of Taiwan, the social welfare includes social insurance, social assistance, welfare service, employment and medical health. The social welfare expenditure of Taiwan has been increased dramatically in recent years. It amounted to 20.6% of the total expenditure in 1997 and was the third high expenditure in Taiwan, less than what had been spent for national defense and economic service. According to the statistical data, the total social welfare expenditure was NT. 145.8 billion in 1993 and increased to NT. 295 billion (US$ 9 billion approximately) in 1997. In terms of the ratio of social welfare to GDP, the central government of Taiwan spent 5.6% of its annual budget on social welfare in 1998. Comparing the percentage of social welfare expenditure to GDP with other countries[1], in general, the social welfare expenditure of Taiwan is less

[1] Some industrial nations in Europe and the United States may have the social welfare expenditure

than those in European countries (such as the rate in the UK was 22.3% in 1994, the average rate of all OECD countries was 27.1% in 1992) and less than the United states (11.9% in 1997). In Asian countries, Japan has the highest level of social welfare expenditure (15.6% in 1996). Taiwan has gradually spent more funds on social welfare (the rate was 5.6% in 1997, see also Fig. 5-5*) while the rate in Korea and Singapore kept around 3% in recent years (MOI, 1998).

In Taiwan, in the social welfare expenditure, that spent on welfare services is within the range of 20-25%. For example in 1997, the funding for social welfare and service (excluding funding for administration) was about NT. 70 billion and 353.79 million in total. The funding for senior citizen welfare stood at 22.2%, which was nearly double that of children's welfare (11.3%) (MOI, 1998).

In Taiwan, an appropriate system to finance long-term care has also been raised concern recently. Under the umbrella of social welfare, the funding for welfare services and the funding for medical/health care services are currently distributed by different systems (budget controlled by MOI and DOH respectively). Although MOI continues to engage in senior citizen welfare service and the DOH has also focused most of the health and medical care budget on long-term care, at this stage, policy about financing long-term care remains undecided. However, financing long-term care has been increasingly discussed. For example, through the way of Social Insurance, Medical Savings Account (MSA) or a combination of MSA and Social Insurance (Lu, 1997). Lu (1997) indicated that social insurance, with risking pooling mechanism, has the advantages of risk sharing among the growing ageing population and further reaching a reasonable premium. However, there may be a substantial inter-generational transfer effect which imposes most of the financial burden on the young working population. MSA has an underlying emphasis on individual responsibility. The MSA advocates argue that the finance system should enforce saving while people are still working, while those who hold the opposite view regard MSA as a system lack of risk sharing mechanism and social responsibility. A combination of MSA and social insurance will provide people with layers of safety

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substituted by social expenditure for a statistical analysis and comparison. Take the Organization of Economic Cooperation Development (OECD) for example, the so-called social expenditure in the statistical data includes social services, social security, and other public expenses for the coverage of health, education, welfare service, and social security (MOI, 1998).

net which have MSA as a base and cover routine long-term care expenses. Once the catastrophic expenses occur, social insurance that has risk pooling mechanism can intervene. In principle, researchers in Taiwan suggest that the financing system for long-term care should be independent from that of the National Health Insurance Scheme (Lu, 1997; DOH, 1997).

Among others, the nation-wide pension system for elderly people added to the social security system has also been explored. In 1996, a National Pension System was proposed by Former Premier. The Ministry of Interior has recently established guidance and working groups for the planning of a National Pension System. The entire planning concept was expected to be finished in this year and the National Pension System is expected to be implemented in 2000.

By the end of 1997, the working group generated an operational strategy for the future National Pension System. The main direction is that the social insurance systems (including the Government Employee' Insurance and the Labour Insurance) will maintain their current operations once the new plan opens to the public. People covered by the National Pension System will be those who are not included in the Government Employees' Insurance and the Labour Insurance System because these two are currently a uniform national pension system. However, this is still under consideration.

According to the MOI (1998), progress is currently taking place within the MOI on:

1. Determining the planning goal of the National Pension System.
2. Completing detailed planning for the National Pension System, such as insurance coverage, conditions of payments, payment standards, ratio between premiums due and contributions, insurance premium accuracy, changes of current insurance system and business organization changes.
3. Enacting the National Pension Law and initiating pertinent regulations.
4. Developing a pension covering old-age benefit payments and also integrating with the current disability and death benefit payments of the Government Employees' Insurance and the Labour Insurance.
5. Adjusting old-age pension, disability benefit payments and funeral allowances of the Farmers' Insurance based on system goals.

6. Planning a total package for various pensions.
7. Coordinating miscellaneous allowances and subsidies.
8. Studying the fund sources and the share of governmental contributions to the system.
9. Promoting the basic National Pension System.

5.2 THE HOMES

This section analyzes the registered nursing homes in Taiwan including their size and structure, characteristics, charges, and staff and services.

5.2.1 Size and structure

5.2.1.1 Size

The nursing home industry in Taiwan is developing and the number of nursing homes is increasing rapidly. Most of the registered nursing homes were established less than 4 years ago. The details are given in Table 5-5. In Taiwan Province (excluding Kimen and Masu), there were 31 registered nursing homes in February 1998 when the sample was chosen.

Size has been found to be very important because it has a bearing upon the viability of the home as a business, and on the facilities, staffing levels and atmosphere (Challis & Bartlett, 1987). The average size of registered nursing homes was 41 beds in Taiwan. Among the 31 registered nursing homes, over 54% were registered for 30 beds and under, i.e. they cared for fewer than 30 patients. The smallest home was registered for just eight patients and the largest home provided care for one hundred patients. Of the 31 registered nursing homes, the position is as follows: Four of them were hospital-based in the public sector. This means that the home was owned and run by a public hospital. Twelve of them were hospital-based in the private sector. Fifteen homes were freestanding nursing homes, i.e. they were owned and run by individuals or companies. Table 5-6 (see also Appendix A) gives the detail about the sizes of these registered nursing homes.

Table 5-5. Registered nursing homes in 1998: length of time established

TIME ESTABLISHED (YEARS)	NUMBERS OF HOMES	(%)	SAMPLE HOMES	(%)
Less than 1 year	12	(39%)	4	(33%)
1 years < 2 years	7	(23%)	2	(17%)
2 years < 4 years	8	(26%)	4	(33%)
4 years and more	4	(13%)	2	(17%)
TOTAL	31	(100.0%)	12	(100%)

Source: Author's survey, 1998.

Table 5-6. Registered nursing homes categorized by size

SIZE OF HOME(BEDS)	NUMBER OF HOMES	(%)	SAMPLE HOMES	(%)
10 and under	1	(3%)	1	(8%)
11-30	16	(52%)	4	(33%)
31-50	6	(19%)	4	(33%)
51-70	3	(10%)	0	(0%)
71-90	4	(13%)	2	(17%)
91-110	1	(3%)	1	(8%)
TOTAL	31	(100.0%)	12	(100%)

Source: Author's survey, 1998.

5.2.1.2 Building

As already noted, there are three types of nursing homes in Taiwan. For those hospital-based nursing homes, the buildings are mainly converted from the wards of hospitals. They have kept the original nurse stations and corridors. The patients' space is mainly in the original wards. The only difference is that the TV lounge is usually bigger than a standard ward and there is less equipment in the wards. For the freestanding nursing homes, some of the buildings were converted from apartments or doctors' clinics and some were purpose-built nursing homes.

Because of the high cost of building in Taiwan, capital costs for the refurbishment and start up for a nursing home were very high on average. This explains why hospital-based nursing homes were usually converted from the previous wards. On the other hand, freestanding nursing homes which were usually located in apartments tended to be smaller. Only one purpose-built nursing home had

more than 70 beds in this study.

The capital cost varied from home to home in the sample homes. For example, one public hospital-based nursing home cost NT. 45,000,000 to convert a previous ward (1170 m*m) to a 50 bed nursing home and NT. 15,000,000 was spent on the equipment. One purpose-built freestanding nursing home was registered for 74 beds and was set up in a six-floor building with 800 m*m space. The cost of the purchase of the building was NT. 110,000,000 and NT. 6,000,000 was spent on the facilities. Another freestanding 50-bed nursing home was leased. It was converted from a three-floor doctor's clinic (total space =1200 m*m). It cost NT. 7,000,000 to set up the home and then a further NT. 300,000 per month for the rent. Another eight-bed freestanding nursing home which is located in a flat cost only NT. 20,000 per month for the rent.

According to the guidelines by the DOH in 1993 for setting up a nursing institution, the regulations for a public-use building such as a nursing home are restrictive and so are fire precautions. It was claimed that conforming to fire regulations was the most difficult aspect of setting up a home. The capital outlay required for a purpose-built home is also prohibitive. The reasons why nursing homes remain unregistered are varied. They include the restrictive legislation, the regulations for registering as a nursing home and lack of knowledge about how to apply for registration. Also some homes are too small and have not formally registered (Wu and Chang, 1995). The survival of unregistered nursing homes has also been helped by the lack of knowledge of elderly people and their families. The interviews with the elderly people and their families found that they often lacked knowledge about the standards required of a nursing home and did not pay much attention to seeing if a home was registered when they were in critical need. They mainly judged a home by their own impressions, geographical reasons and fee levels. These unregistered homes, between the blurred line of the nursing home and residential home, however, are fully utilized in the long term care market. It was estimated that the total capacity of nursing home beds needed in Taiwan was 20,000 beds but fewer than 1,200 beds have been established in registered nursing homes (DOH, 1995).

5.2.2 Characteristics of the homes

5.2.2.1 Types of rooms

As can be seen from the list of the 12 sample homes in this study, they offer a small number of single rooms (Table 5-7*). If the occupancy rate (mean = 90%) was also considered at the same time, it means that fewer than 10% of the patients currently occupy single rooms. This was mainly because the charges for nursing homes have to be paid for by patients or their families alone rather than reimbursement from the NHI. Therefore, most of the patients' families did not choose single rooms. The subsidies from the government only apply to a small group of low income families (as noted above). In addition, the DOH guideline for the establishment of registered nursing homes recommend the minimum distance between each bed, from the bed to the wall, the minimum square footage per patient and the average space needed by each bed (total space / beds must be more than 20 m*m). They do not stipulate whether rooms should be shared or single only that one room should not be shared by more than eight patients.

In fact, more than 66% of the patients lived in the multiple-bed rooms (for three to eight patients), while about 24% of the patients were in double rooms. The proprietors claimed not only that multi-occupied rooms were in accordance with families' preferences but that this suited the average high dependency rates for patients in nursing homes. Multiple-bed rooms were more convenient to care for such patients. Some also thought that the stimulation of being with other patients was another good point for patients suffering from confusion.

5.2.2.2 Facilities in the home

Although much research has recommended guidelines for the quality of care in nursing homes, there is currently no system of inspection by the government. However, the information about the basic facilities gives some indication of the quality of life that might be expected in these homes.

In this study, it was found that the TV lounge, or so-called sitting room, was a common feature in every home. It was used for activities such as watching TV, social activities and, in some homes, also doubled as a dining room where meals

were served on individual trays or lunch/dinner boxes. Only half (six) of the homes sampled had separate dining rooms. A choice of menu was not offered in most of the homes (75%), because it was thought that patients needed only simple food and the nutritionist is best able to make this choice.

Only one of the sample homes offered a guest room for patient's relatives or friends. None of them provided a bar service, although in some homes an auto machine selling drinks was available. Only one home had a shop for the use of patients. The provision of a shop was considered to be unnecessary by most of the proprietors because they said that they had already made sure that their patients had all they needed. Also, because of the frequent visiting pattern from the families, any 'extra' food or whatever was needed for their personal use (e.g., tissues) were easily provided by them. For small homes, it is not economic for proprietors to provide a shop. One claimed that "If some patients really need to buy something, we can send someone out to do this".

Fifty percent of the homes provided a telephone in the room for the patient or mobile phone for their use. The others only offered public telephones in the TV lounge or corridors. A television in the patients' room was provided in 33% of the homes. Some of the proprietors felt that a TV in the patients' rooms was not necessary because it was available in the sitting room. Also because of the high rate of multiple-bed rooms, a TV in a room could cause tension because watching preferences might not be the same. It may be more appropriate that individual TVs are only provided in single rooms. Radio broadcasts from the central system were common in 75% of the homes and patients could also bring their own radios.

Half of the sample homes said that day outings and transport could be arranged for the patients. However, such outings were rare and difficult to arrange because of the high proportions of patients who were confused and bed bound. In terms of transport, it was mainly the families who provided this when patients needed to go out or make a visit back home.

A lift was common in nursing homes because it is a basic requirement in DOH guidelines if a home is above ground floor.

Eleven out of the 12 sample homes had physiotherapy facilities. The proprietors indicated that this was an important facility and this was also endorsed by the families (see chapter 7). These facilities were not easy to obtain in a patient's

own home. In the nursing homes, they offered opportunities for patients to exercise on a daily basis. Physiotherapy is not only thought to be good for patients' rehabilitation but also the proprietors argued that it was one of the better ways of passing the time in the afternoon.

Gardens and greens are precious in Taiwan. For these registered nursing homes, seven of them claimed in the postal questionnaire that they had gardens. However, after visiting these homes, it was found that they were sometimes far away, or were used in common with the hospital's patients or were roof gardens with some plants on the ground.

In terms of the facilities, a bath room with a portable shower and bath hoist was common. To avoid the possible risks of showering, most of the homes were responsible for helping patients to shower every two or three days. Because of the risks, most proprietors insisted on this help no matter whether the patient could wash her/himself or not. In hospital-based nursing homes, a range of hoists to enable staff to move patients safely were common. Proprietors also indicated that it was important to prevent occupational injury by the staff.

The nursing home facilities basically match the interests and needs of the working staff and what were thought to be the needs of their patients. Most of the rooms were ward-like rather than home-like. In the day time, most of the patients sat in their wheel-chairs rather than sitting in comfort on a sofa or some chair which s/he was familiar with. Some patients had a restraining belt to avoid them slipping from their chair. Although this had also restricted patient's liberty, most homes regarded safety as a priority. In one home, a kind of multifunction wheel-chair was used because the proprietor thought it was more comfortable for sitting for a long time. It could also reduce the chance of patients' slipping from a chair. However, only three of the multifunction chairs had been purchased for 35 patients' use because the proprietor claimed that they were too expensive.

Most of the time which staff spent in nursing homes went on routine care such as physical checking, dispensing medication, feeding, washing and changing/cleaning tubes. It is desirable that occupational and leisure activities for all patients who wish to participate should be available but these were only provided regularly in half of the homes. Some proprietors indicated that the activities were definitely important but there was a shortage of the staff to organize them and make them attractive.

Personal observation showed that it was very hard to get patients involved in social activities. Most of them followed a daily schedule in homes but it seemed that they had no real interest in doing anything. "The most common thing for them was just sitting there motionless. Visits from their families might be the only thing for them to expect.". This was the comment of a nurse who described her feeling for those patients for whom she had cared for quite a long time.

The study's findings on the daily life in a nursing home and the facilities and provisions for patients certainly indicated that more attention to individual patient's need is necessary but much ignored.

5.2.3 Charges

5.2.3.1 Standards for fees

The government has given no standards for the fees of registered nursing homes. Nursing homes just have to send a copy of their fee levels to the Local Health Authority. Nursing homes set their own charges by considering situations such as the patient's dependence and the cost of care but in the main, they compare fees in the local markets. Charges for the monthly nursing home care ranged from NT. 20,000-35,000 in 1998 (when the survey was conducted) and in some hospital-based homes with better facilities and more staff, the fee rose to NT. 50,000 or more. Therefore, fees vary a lot between homes. In general, hospital-based nursing homes charged more than freestanding nursing homes. Within individual homes, the different fee standard was partly accounted for by the types of room. The degree of nursing care required by the patient also had a bearing on the level of fee charged. Three of these 12 sample homes charged their patients mainly on dependency levels but also on room types. All the sample homes except for one nursing home made extra charges for the disposal of certain items of patients such as incontinence pads, paper tissues…etc. and for laundry. Table 5-8* gives the detail of these charges.

Although fees may not necessarily relate to the quality of care, the level of fees will partly determine how many staff can be employed and what kind of care can be offered. In order to compete with other institutions, fee levels tended to be low to begin with. Most of the proprietors complained that the fee levels were only enough

to survive in this business. One proprietor said, "In order to attract people, the charge is always lower than the actual cost. In order to compete with so many unregistered nursing homes, attracting people to come is the first step to introducing better services.". Therefore, they run this service with the minimum basic staff required and keep the necessary quality of care as high as they can. In this study, nine proprietors (75%) of these 12 sample homes did not deny the "inherited market level" was one of the most important factors which must be considered. Of course, the situation will be a little bit different in some hospital-based nursing homes. In these homes, their reputation had been set for years and these was the possibility of back up of more staff and equipment from the hospital. They were often too popular to have vacancies because the traditional view of Taiwanese people is that care in a hospital-based nursing home was thought to be better.

5.2.4 The assessment for admission and the medical service

5.2.4.1 The assessment

According to the Nurse's Law (1991), the nursing home should admit people who are:

- Frail elderly patients with chronic illness who need long-term care and have been diagnosed by doctors.
- Frail elderly patients with chronic illness who need long-term care after hospitalization.

After interviews with the proprietors of the registered nursing homes in this study, it was found that because most of the applicants were of high dependency, they basically admitted all the frail patients who had applied including those with incontinence, confusion and mental dependencies. However, all homes refused patients with any infectious disease and most of the homes (10) refused patients who were diagnosed with psychiatric problems. Some homes (2) also refused access to patients who were in an extremely unstable state (i.e., physical instability, falls, unstable gait, disorientation). All the sample nursing homes had a standard procedure in their assessment with the formal admission sheets. The medical factors (including medical history, diagnoses, and functional records) were the main concern in their

assessment. The assessment records were filed in the chart of each patient. In terms of time for the assessments, most of the homes first assessed their patients when admission. It was, in many instances, not possible to visit a prospective patient at home, or in hospital prior to their admission, although the staff clearly saw the value of such procedures.

5.2.4.2 The medical service

According to the DOH guideline, the doctor has to visit the patients in the nursing home at least once a month. S/he has to check each patient, renew instructions and give the necessary treatment. Under the supervision of the doctors, nurses dispense medication and perform any nursing care that is needed.

According to the Guidance for Medical Care Reimbursement Items (NHI, 1998), the services which can be provided in nursing homes include:

Arranging necessary investigations such as urine tests, stool tests, hematology tests, and biochemistry examinations. Administration of Intra-Venous drips, naso-gastric feedings, urinal catheterlization, enemas and suctions. Care of colostomy, cystostomy and tracheotomy sites…etc..

5.2.5 The staff

The DOH of Taiwan laid down the Guideline for Registered Nursing Homes and other nurse-running institutions in 1993 (DOH, 1993). The guideline regulates the ratio of different kinds of staff. For nurses, four nurses will be needed as a basic requirement for a registered nursing home and one nurse is needed for every 10 beds, i.e. for a 50-bed registered nursing home, 5 full time nurses should be employed. For care assistants, every 5 beds needs at least one care assistant, so 10 full time care assistants should serve in a 50-bed nursing home. In addition, at least one social worker is needed for a nursing home that is registered for 100-149 beds. In nursing homes with under 100 beds, the proprietor should assign some one (this could be a part-timer) to take charge of the social work in the home. A physical therapist, occupational therapist and dietician are recommended in the guideline. Table 5-9* shows the numbers of staff in the homes and the staff /patient ratios. Ratios were

calculated for the number of staff divided by the number of patients on average (occupancy rate *beds opened) in each home.

5.2.5.1 The nursing staff

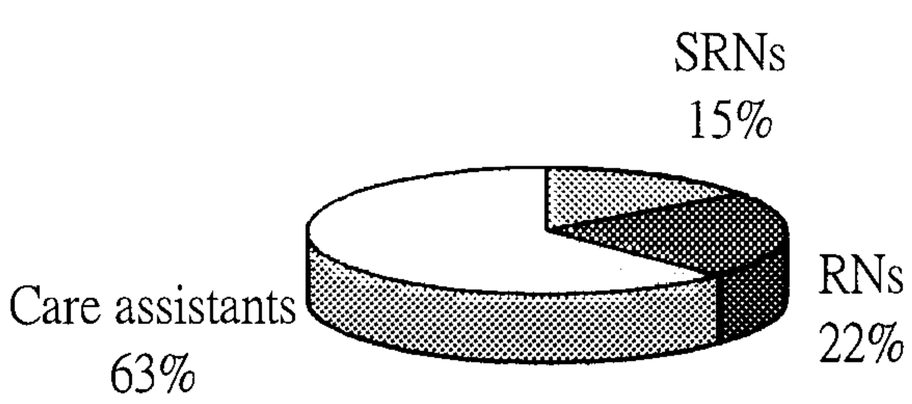
In this study, the 12 sample homes employed a total of 69 nursing staff including 28 full time senior registered nurses and 41 full time registered nurses. According to the Nurse Law, No. 19, nursing homes have to have one senior nurse to be the person-in-charge and supervise the nursing home service. Part time nurses were not usually found in this study. Most of the homes used full time nurses including 41% senior registered nurses and 59% registered nurses.

Staff/patient ratio is 0.78 in average with standard deviation ±0.46 (0.65±0.17 if ZF is excluded) (see Fig. 5-3*; Table 5-9*). Nursing home ZF had a higher rate of staff than average was because this nursing home had just opened 2 months ago. When the study was carried out, the occupancy rate was still low.

5.2.5.2 The ancillary staff

One of the most important sources of manpower in nursing homes is the care assistants. According to the DOH guideline, the staff/patient ratio for care assistants is double that for nursing staff. Fig. 5-4 shows the distribution for nursing staff and the care assistants in the sample homes.

Fig. 5-4. Nursing staff and care assistants in the sample registered nursing homes



Ps. SRNs: Senior Registered Nurses; RNs: Registered Nurses.
Source: Author's survey, 1998.

Care assistants have to be trained first and awarded a certificate before working in nursing homes. The training course included 40 hours' geriatric nursing care and 60 hours' practice (DOH, 1993). Teaching hospital-based registered nursing homes with more than 50 beds were usually asked by the DOH to train the care assistants and give them the certificates. Therefore, the number of qualified care assistants is still low. Some nursing homes turned to foreign workers as care assistants. There are government regulations which state that two/thirds of the care assistants must be native workers (i.e. Taiwanese), however, foreign workers such as those from the Philippines tended to be popular in the nursing home labor markets. This was partly because of the lower salaries laid down by the government. In this study, it was found that freestanding nursing homes and hospital-based private nursing homes tended to use more foreign workers than public nursing homes. Five out of the 12 sample homes hired foreign workers as care assistants but none of the public sectors did. Part-time care assistants were used in only one sample home. The other homes mainly used full-time care assistants who usually worked 44 hours per week.

One situation found in this study was that in some cases the hired-helpers used by the patients before entry to the nursing home continued to be employed by the families to care the patients after their entry to the nursing home. These helpers offered greater help to the patients. They usually sat by the patient's bedside, did some chores, went on messages for the patients or helped with their daily living activities. One proprietor in the public sector indicated that this situation was not welcome in their home because care for the patients was the job of their staff. She expected some management problems and a gray area about who was responsible for care in this situation. Other proprietors who had similar experiences said that they left them there because the families felt safer and more comfortable that way. The only thing that could be done was to lay down rules once they came into the home on a daily basis. However, some proprietors indicated that hired-helpers did give additional help and compensated for the shortage of staff in homes.

In hospital-based nursing homes, sharing staff with the hospital, especially the ancillary staff such as cleaners, cooks and maintenance people, laundrymen...etc. was very common because they were already there in the hospital. These ancillary staff tended to be a group of part-time workers. There are no regulations about

staff/patient ratio for ancillary workers. In one nursing home in this study, it was found that their ancillary staff were hired from a professional company outside the home.

5.3 THE PROPRIETORS

As mentioned above, the nursing home system in Taiwan can be divided into two main sectors: the public and private. In terms of the types of homes, at the moment, all the public sector homes are hospital-based, i.e., the nursing home was set up by the hospital, usually located in the building which was part of the hospital and regarded as one unit of the hospital. Private sector homes include hospital-based nursing homes which were set up by either private hospitals or non-profit foundations. Freestanding nursing homes were set up by individuals, a joint proprietorship or a company.

The profile of the proprietors and their roles as carers was examined in this study. The data is from the main postal survey and from the more detailed interviews with each proprietor of the 12 sample homes.

5.3.1 Ownership and personal background

Since the establishment of nursing homes was announced in the Nurse Law, 1991, the private sector was the pioneer in setting up nursing homes in the health care market. They were encouraged by government policy. In fact, more than 85% of the nursing homes in the market belong to the private sector and are either private hospital-based nursing homes or freestanding nursing homes. In 1998, the government announced a three-year plan (from July, 1998 to June, 2001) in order to increase nursing home beds to the target of 14,230 beds in total. This was to achieve the goal of 74.15 nursing home beds per 10 thousand elderly people.[2] Under this

[2] This plan comprises (1) to supervise the establishment of public (provincial ; city's) hospital-based nursing homes in each county to 1,590 beds in total. (2) to transform some of the chronic beds in Veteran's chronic hospitals to nursing homes for 1,310 beds in total. (3) to supervise and encourage the set up of private nursing homes in the market, including the set up of hospital-based private nursing homes to 1,500 beds and freestanding nursing homes to 900 beds in three years. In addition with the new nursing homes in application, this plan is estimated to add 5,600 beds to the nursing home market in three years (DOH, 1998).

plan, it is hoped that many new nursing homes especially in the public sector will be launched in the near future.

According to the Nurse Law, 1991, a nursing home has to appoint one senior nurse to take in charge of the services no matter what the status and ownership are. Therefore, the person-in-charge in every registered nursing home is a qualified nurse whose disciplines match the guideline's requirements.

In this study, except for three public and four private nursing homes run by hospitals, there were four freestanding nursing homes owned by joint proprietors and one owned by a private company (Table 5-10*). In terms of the backgrounds of these owners, most of them came from medical professions especially those in hospital-based nursing homes. Only the composition of the private company included some people who were previously outside this business. Private hospitals were usually owned by doctors and the foundation based hospitals were run by a board where doctors and other medical professionals were the usual members.

This research has shown that the market is presently dominated by small homes run by the private sector. This has been due to a number of factors including the need at the pioneering stage for the home to be small in order to probe the market and to get financial balance; the DOH guidelines which recommended a lower staff requirement for homes under 100 beds, and the seeming ability of the private sector to respond quicker in terms of the market change.

In this study of the nursing home market, it was found that the proprietors were mainly the related groups of professionals who had the knowledge and interest in long term care. According to the subsidization policy of DOH for setting up nursing homes, the professionals especially the doctors who owned a private-hospital could get easier access to the subsidy resources (see Table 5-4*). This policy made the professionals especially the doctors have a better opportunity and more financial resources to invest in the nursing home industry. Investment in the nursing homes was usually by medical professionals such as doctors and/or nurses. They were usually registered in the name of a senior nurse and nurses were in charge. None of them was currently owned by a husband /wife or by only one proprietor.

As noted above, the hospital-based nursing homes whether private or public are encouraged by government policy. In the next three years, the hospital-based nursing homes are likely to contribute more than 4,000 beds to the nursing home

market if the government policy is fully implemented. According to one proprietor of a freestanding nursing home, the hospital-based nursing homes usually have more medical resources and are preferred by Taiwanese. In long run, there will be a challenge to the development of freestanding nursing homes in Taiwan and they will be forced to compete with hospital-based nursing homes.

5.3.2 Becoming a nursing home proprietor

The person-in-charge, always a senior nurse, runs the nursing home. He/she is not necessarily the owner but is usually the person registered who understands the day to day running of the nursing home. The interviews showed that the proprietors often seemed unclear as to why they had got into the business and gave many reasons other than those to do with profit. After the detailed interviews with each of them, the *motives* of the proprietors over why they ran the nursing homes were mainly as follows:

1) The development of long term care is a trend and this business has potential for the future (mentioned by 8 proprietors).
2) Hospitals need to transform and run in multiple directions to adapt to people's needs and market trends (mentioned by 6 proprietors).
3) A response to the government's policy (mentioned by 5 proprietors).
4) Their personal interest and professional field (mentioned by 3 proprietors).

It was claimed by one owner that under the fee standards, it is not possible to make a profit in the short term. Another proprietor complained that she felt regret that she had invested in a nursing home so early. "There is no point in sticking to the nursing home model and it is nonsense to compete with so many unregistered nursing homes near by. Maybe the best timing for running a nursing home has not yet come!". She said that she was considering an alternative investment in a rehabilitation center. However, another two proprietors said that if they kept the staff numbers at the basic requirement, it was possible to get a financial balance when more than thirty patients moved in. One director of the nursing department in a public hospital (nursing home) indicated that "It is possible that tomorrow will be better. The long-term care system is definitely right for us, It is good to follow the government's policy and set up the model in spite of the fact that the road for

pioneers is winding.".

In terms of other *alternatives* to investing in nursing homes, only two out of 12 sample homes had planned to invest in other ventures. One proprietor planned to invest in a Chronic Obstructive Pulmonary Disease (COPD) center and the other home owner planned to invest in other long term care services such as the meals-on-wheels and the rehabilitation center. Although no alternatives had been considered in the other homes, three out of these ten sample homes planned to expand their nursing home business. The first one, a provincial hospital-based nursing home (public sector), had applied to set up another 50 beds. The second home was a private hospital-based nursing home which had 50 beds already and a year ago started to establish another 200 beds. It was expected that a 250 bed nursing home could be completed in two years. The third one is another public hospital-based nursing home with 30 beds at the moment. Before this it was a community hospital with 39 beds and four clinics. The CEO of the hospital planned to convert the hospital entirely to a nursing home and day care centre. He said that "Long-term care is our future and the only way to keep the business going. There were too many acute hospitals and beds in this area but long term care is virgin land to explore. It will be a real benefit for local people if the integration between acute care and long-term care and affiliation between hospitals can be achieved."

It has been found that under the government's policy, many medical professionals got involved and invested in the nursing home industry with little experience in this type of provision. They learned from the practice of their peers. It was enthusiasm that they relied upon to overcome many difficulties. Especially for those private sector nursing homes, the financial pressure (mentioned by 10 out of 12 proprietors including all the sampled home owners in the private sector and 1 in the public sector) was the most important factor that pushed owners or potential owners to make or continue their investment or even give up.

5.3.3 Problems in running a home

In summary, from the point of views of the proprietors, the *problems* in running a nursing home were as follows:

1. Professionals usually lack an active plan to refer patients to long-term care (mentioned by 9 proprietors). In Taiwan, a comprehensive long-term care system is not yet well established. The hospitals which have a discharge plan often only make suggestions for the long-term care placements. The function of a 'care manager' such as in the UK has been recommended in the government's long-term care plan but none have been set up. The lack of a well organized discharge plan in hospitals leads to problems. For example, in order to compete with unregistered nursing homes, some proprietors said that a commission had to be paid to the brokers by the nursing home when the patient was introduced and sent to there (N.B. A broker here refers to the person who introduces a long term care placement when the patient needs to be discharged from the hospital and usually gets money for feedback.). They could be the care assistants or cleaners in the hospital who may be more familiar with the long term care resources than the families.
2. There may be staff problems (mentioned by 8 proprietors). It was very difficult to hire qualified care assistants. The salary of a well-trained care assistant in a nursing home is about NT. 30,000-32,000/per month. It is much lower than that if the care assistant is hired as personal-helper either in the hospital or in an elderly person's own home. Care assistants from abroad such as from the Philippines and Malaysia, therefore, are popular because they are paid less. A high turnover of staff makes this business harder.
3. High quality of care costs money (mentioned by 6 proprietors). It is very hard to promote a good quality of care when charges are low. It is difficult to provide anything extra for the patients. If fees are increased, then the potential loss of the patients will be another worry.
4. The payment for nursing home care for most people has to be paid by patients themselves or their families and not every one can afford the rate in the long run (mentioned by 5 proprietors).
5. A blurred concept of long-term care restricted the development of professional care levels of a nursing home (mentioned by 4 proprietors).
6. Running a nursing home was based on a trial-and-error model and depended on the proprietors' personal experience and knowledge (mentioned by 3 proprietors). Little guidance or supervision was easily available outside the

home.

7. Elderly people and their families knew little about nursing homes (mentioned by 3 proprietors). There appeared to them to be little difference between nursing homes and residential homes.

5.3.4 Impact to the nursing home industry

All the nursing home proprietors stated that finance would be the most important factor in orienting the development of the nursing home industry. Most (11 proprietors) of the nursing home proprietors reckoned that nursing home services should be covered by the National Health Insurance (NHI) as nursing home care is actually part of the health care system. In addition, reimbursing the registered nursing homes from the NHI could not only help to upgrade the service quality but also reduce the vicious competition from the unregistered ones. The other proprietor who held the opposite view said that nursing home fees should be covered by social welfare expenditure but not health care expenditure because long-term care is more social care rather than health care.

At this stage, apart from the subsidies coming from the government (see 5.1.3), the NHI was thought to have the main source of economic support but this remains under consideration. To those hospital-based nursing homes, the impact from NHI is relatively smaller because most of the medical care (including out-patients clinics, medical treatments, medications...etc.) which nursing home patients needed could be covered by NHI through the acute hospital NHI reimbursement system. On the contrary, freestanding nursing homes felt unfair and impossible to compete with hospital-based homes because under current situation, patients in freestanding homes should pay everything by themselves except some nursing treatments exemption as noted above. Comparing to the monthly nursing home fee, these are small and not all the patients can benefit from them (i.e., some patients do not need the certain treatments). Some proprietors emphasized that the freestanding nursing homes that are actually more 'homely' like and match people's needs should be encouraged by the government.

The long term care services in the community (other alternatives to the health care delivery system) play another key role which will influence the development of

nursing home industry (noted by 7 proprietors). These include day care, home care, respite care, meals-on-wheels and even the professional hired-helpers' training program. Partly because of the traditional view of filial responsibility and also because the nursing home fees have to be paid by elderly people or their families at the moment, an economic way which might also be able to take care of both the needs of the frail elderly people and their families' morals and values would be if they could purchase some of these domiciliary services.

Furthermore, two proprietors mentioned that the reimbursement policy (i.e., the length of stay which is covered by NHI in acute hospitals) of NHI also will greatly impact the source of patients in nursing homes. For example, because the acute hospital care is free, elderly people may be re-hospitalized several times a year and regard the nursing home as a transition point. These proprietors suggested that the NHI should help to set up the mechanism-- release the chronic patients into long term care properly.

All these macro-level impact mentioned by proprietors were described as "out of control" factors. Nursing home is only one element of long term care, these proprietors hope to see the well development of long term care in Taiwan. Within the context of the changing service availability in the community, the government policy towards long-term care and the future funding system, the nursing home industry is expected to be well developed only when those who most need the service can get it.

5.4 DISCUSSION

One of the most perceptive analyses of the current situation in Taiwan is a Japanese scholar Ogawa (1990). His argument (with which I agree) is as follows: government intervention in the provision of health care for an ageing population is increasingly needed as a country proceeds on her modernization path. The structural macro factors such as government supervision, policies for reimbursement, staff education and training, and referral have influenced the institutional factors in the nursing home industry such as providers' willingness to invest, their management and manpower ratio, the physical institutional conditions, use by consumers, family involvement and placement policies. Reviews of health programs and planning in a

world perspective show pronounced differences in approaches. In the US, for example, market forces are stressed in the development and allocation of health resources. In contrast, the welfare of socialist states hinges upon centralized national health planning. Between the two extremes lie most countries in both developed and developing regions. Ogawa (1990) argues that the health programs of each of these countries is heavily dependent upon not only economic and demographic development but also upon cultural, historical and ideological factors.

Government policy can influence the supply of long-term care in terms of both the amount and standard of provision and utilization. For example, reducing incentives for providers (e.g. enforcing rules and regulations) and/or reducing the reimbursements given for nursing home care can affect the amount and standard of provision. In this study, it was found that the main concern by the proprietors of nursing homes was both current and future government policies towards long-term care. How much did the government's policies rely on institutional care, especially nursing home care in terms of the public and private sectors respectively? Community care is also an important priority in the three-year plan. But this raises questions. For example, what would it cost to provide alternatives to nursing home care on the scale that would be necessary to reduce demand for places? Will those alternatives actually be developed? Is 'community care' what people really want? What are the related costs? All these questions remain unanswered in Taiwan. The only clear government policy is the development of a long-term care system through the establishment of a variety of facilities including home care, day care and nursing homes. Although much attention has been paid to the experience of other countries, a comprehensive long-term care system could not be successful solely by setting up all the varied kinds of facilities. Although a measure of uncertainty may be inevitable at this pioneering stage, more effort needs to be spent on more precise guidelines.

The integration between long-term care under the DOH and the social care system under the MOI has also had a great influence on the distribution of long-term care resources. To ensure a co-ordinated supply of long-term care at both central government and local authority level, there needs to be collaboration between the two. For example, initiatives about the need assessments at the single entry point (SEP) to decide where is the suitable placement for an elderly person may need a joint commission to organize between resources. Attempts to integrate them cannot

be undertaken unless both the DOH and the MOI have a clear idea of what they want from each other. They would have to have a plan. Although issues about integration are in the 15-year long-term care plan, there are no clear guidelines.

Furthermore, learning from other countries, the way of financing long-term care will actually direct people's utilization of long-term care and the development of it. The current system of government provision for long-term care in Taiwan, apart from those social welfare for low incomes, is only financed on home nursing program under the DOH and some nursing treatments in nursing homes as mentioned previously. The principle of financing long-term care should be based on fairness; maximum choice, dignity and independence; security, sustainability and adaptability; and also quality and best value (the Royal Commission Report, 1999). In Taiwan, the Social Insurance or a combination of MSA and Social Insurance funding system might be more preferred by the government (Lu, 1997; Wu et al., 1998). The development of a pension system for elderly people would be likely to increase their choices. In this planning stage, the government should make it clear what will be financed by public funding, i.e., the balance between an individual's responsibility and the support from the public funding. It is also important to ascertain how much money goes to support elderly people in residential settings and in people's own homes and to ensure that the long-term care funding system is co-ordinated by the DOH and the MOI. Under the supervision of DOH, reimbursement for acute care is also relevant. The NHI should plan for a reimbursement system which could direct elderly people to the care where they really need and suitable. In Taiwan, under the premise of a stable political environment, a better funding system with its economic power could help to form a comprehensive continuing care system by integrating and collaborating between the two care systems (the acute care and the long-term care) which were artificially divided before. Clear guidelines together with the relevant legislation is also recommended in order to establish a clear comprehensive long-term care funding system.

Ogawa (1990) indicated that three variables (*per capita* public medical expenditure, *per capita* gross domestic product and the percentage of those aged 65 and over in the total population) were indices to show how the government budget competed with resources for other socio-economic development goals. Based on previous experiences in health programs of western countries, he suggested that "the

higher the *per capita* income level or the proportion aged, the larger is the amount of *per capita* government resources committed to medical expenditures" (Ogawa, 1990). In Taiwan, the *per capita* national income (i.e. GNP) had increased to US$12,838 in 1996 and the total health expenditure had increased from 4.20% of the Gross Domestic Product (GDP) in 1990 to 5.48% of the GDP in 1996 (Fig. 5-5*) (The Central Bureau of National Health Insurance, Taiwan, 1998). With the rapid aging of the population in recent years, the larger amount of *per capita* government resources committed to medical expenditure will be inevitable under current policies.

Baldock (1997) suggested that it is often the provider characteristics rather than the user characteristics that is the important influence in the use of the health and social services by elderly people. At this developmental stage, one of the major tasks of government policies for long-term care is to make sure that every one has equal opportunities in terms of the availability and accessibility of long-term care. A predicted major challenge is the need to integrate the systems of acute and chronic care. Mechanic summed this up as the need that "individuals with complex problems can be managed in a manner that attends to a wider range of needs that affect function, that avoids fragmentation in services, and that maintains continuity" (Mechanic, 1994, pp.229).

Table 5-4. Nursing home subsidization method by the Medical Development Foundation (Department of Health, Taiwan)

Applicant	*Hospitals plan to develop nursing home service*
Marginal size	Nursing home with 50-200 beds
Standard of subsidization	NT. 450,000/per bed
Interests subsidy	Subsidize 80% of the interest of the loan

ps.

1) This subsidization method from the budget of DOH was announced in January, 1995 to encourage the establishment of the hospital-based nursing homes.
2) In this subsidization method, hospital-based nursing homes have the first priority to receive the subsidy.
3) 1 pound = NT. 53.5 (New Taiwan Dollars) (20 Jan. 1998)

Source: DOH, 1995.

Table 5-7. Room types and numbers in the sample registered nursing homes

Sample nursing homes		Types of room			
TYPES OF HOME	NAME	SINGLE No. (%)	DOUBLE No. (%)	TRIPLE No. (%)	FOUR AND OVER No. (%)
HOSPITAL-BASED (PUBLIC)	KL	0	7 (63.6)	3 (27.3)	1 (9)
	TC	2 (11.8)	4 (23.5)	5 (29.4)	6 (35.3)
	TN	2 (12.5)	0	8 (50)	6 (37.5)
HOSPITAL-BASED (PRIVATE)	MC	0	0	26 (100)	0
	PL	0	0	3 (75)	1 (25)
	SJ	9 (45)	0	5 (25)	6 (31)
	WK	4 (9.5)	18 (42.9)	0	20 (48.6)
FREESTANDING NURSING HOME	GN	1 (7.1)	1(7.1)	6 (42.9)	6 (42.9)
	RH	2 (22.2)	2 (22.2)	0	5 (55.6)
	RS	0	0	0	4 (100)
	YT	0	0	10 (100)	0
	ZF	0	17 (53)	0	15 (47)
Total		20 (9.8)	49 (23.9)	66 (32.2)	70 (34.1)

Source: Author's survey, 1998.

Table 5-8. List of the charges by room size (per month)

Sample nursing homes		Charges for rooms			
TYPES OF HOMES	NAME	SINGLE Fees (NT.) x No.	DOUBLE Fees (NT.) x No.	TRIPLE Fees (NT.) x No.	FOUR AND OVER Fees (NT.) x No.
HOSPITAL-BASED (PUBLIC)	KL	--	30000x7	27000x3	27000x1
	TC	45000x2	38000x4	(36000-37000)x5	34000x6
	TN	80000x2	--	40000x8	40000x6
HOSPITAL-BASED (PRIVATE)	MC	--	--	45900*x26	--
	PL	--	--	30000x3	30000x1
	SJ	39000x9	--	29000x5	29000x6
	WK	44500x4	25000x18	--	25000x20
FREESTANDING NURSING HOME	GN	27000x1	(18000-27000)x1	(18000-27000)x6	(18000-27000)x6
	RH	(22000-32000)x2	(20000-30000)x2	--	(20000-30000)x5
	RS	--	--	--	(20000-30000)x4
	YT	--	--	(21000-30000)x10	--
	ZF	--	(21000-30000)x17	--	(20000-28000)x15
Total		(22000-80000)x20	(18000-38000)x49	(18000-45900)x66	(18000-40000)x70

Ps. -- means that there were no such room types in that nursing home.
* means that the fee standard includes all the expenses needed by the patient who lives in the home.

Source: Author's survey, 1998.

Table 5-9. Staff numbers and staff/patient ratio in the sample registered nursing homes

Name	Numbers of nursing staff		Numbers of ancillary staff		Numbers of full-time Staff	Staff/Patient ratio	Part-time staff
	SRNs (Senior Registered Nurses)	RNs (Registered Nurses)	Care assistants	Others			
TN	4	5	15	6	30	.65	10
KL	3	8	6	3	20	.72	1
TC	2	4	10	3	19	.76	7
MC	5	3	21	2	31	.48	3
SJ	6	2	15	3	26	.53	6
PL	0	4	8	0	12	.79	4
WK	1	5	12	4	22	.46	5
GN	2	1	10	5	18	.44	6
YT	0	4	5	3	12	.69	0
RH	1	3	7	7	18	.63	1
ZF	4	1	4	7	16	2.16	2
RS	0	1	3	6	10	1.00	2
TOTAL	28	41	116	49	234	0.78 (±0.46) 0.65 (±0.17)*	

* Staff/patient ratio if Nursing home ZF is excluded.

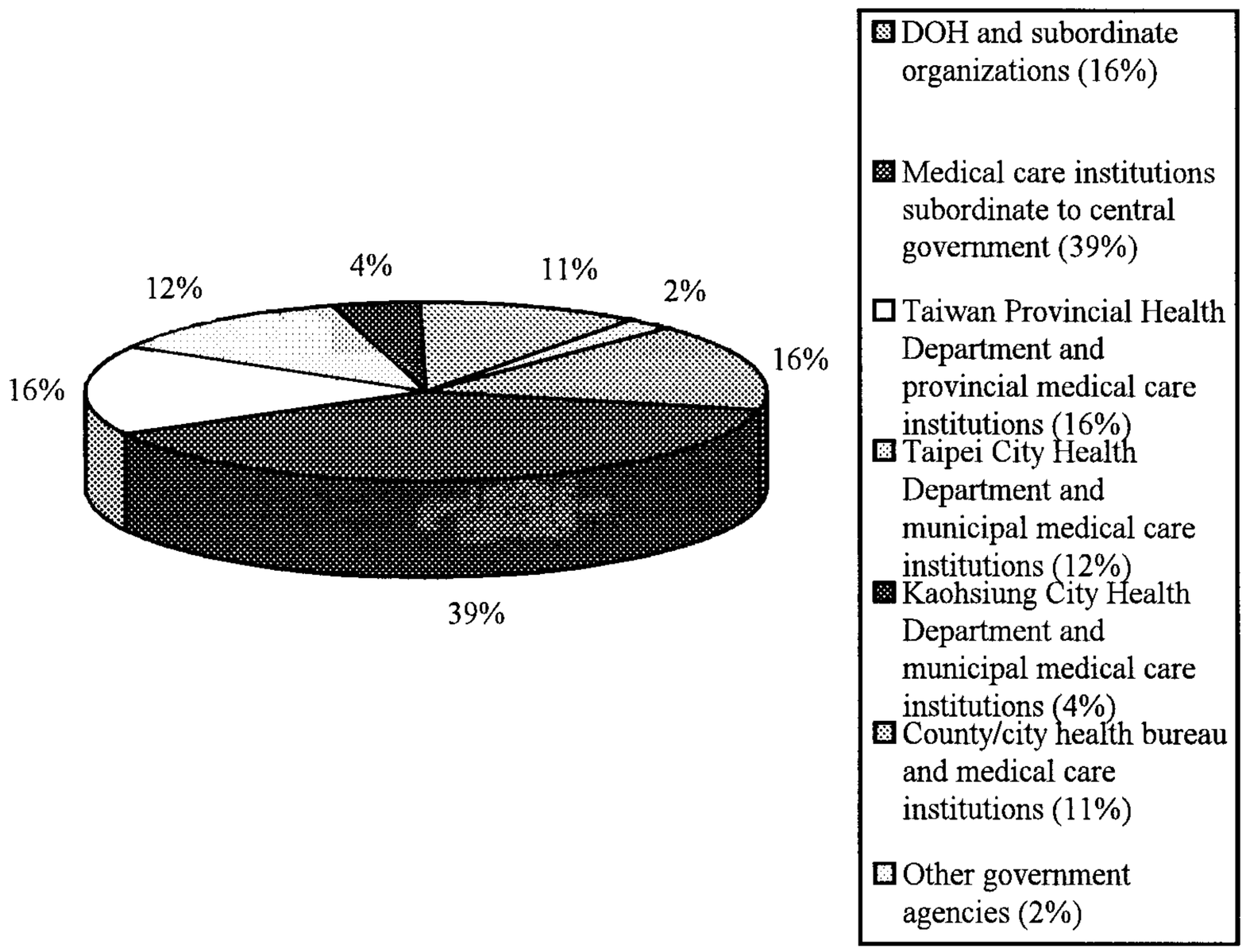
Source: Author's survey, 1998.

Table 5-10. Ownership status of the sample registered nursing homes

Status of home	Type of ownership	Homes	%
PUBLIC SECTOR	Hospital-based	3	25.0%
PRIVATE SECTOR	Hospital-based	4	33.3%
	Freestanding		
	A joint proprietorship (2 or more)	4	33.3%
	Company	1	8.3%
TOTAL		12	100.0%

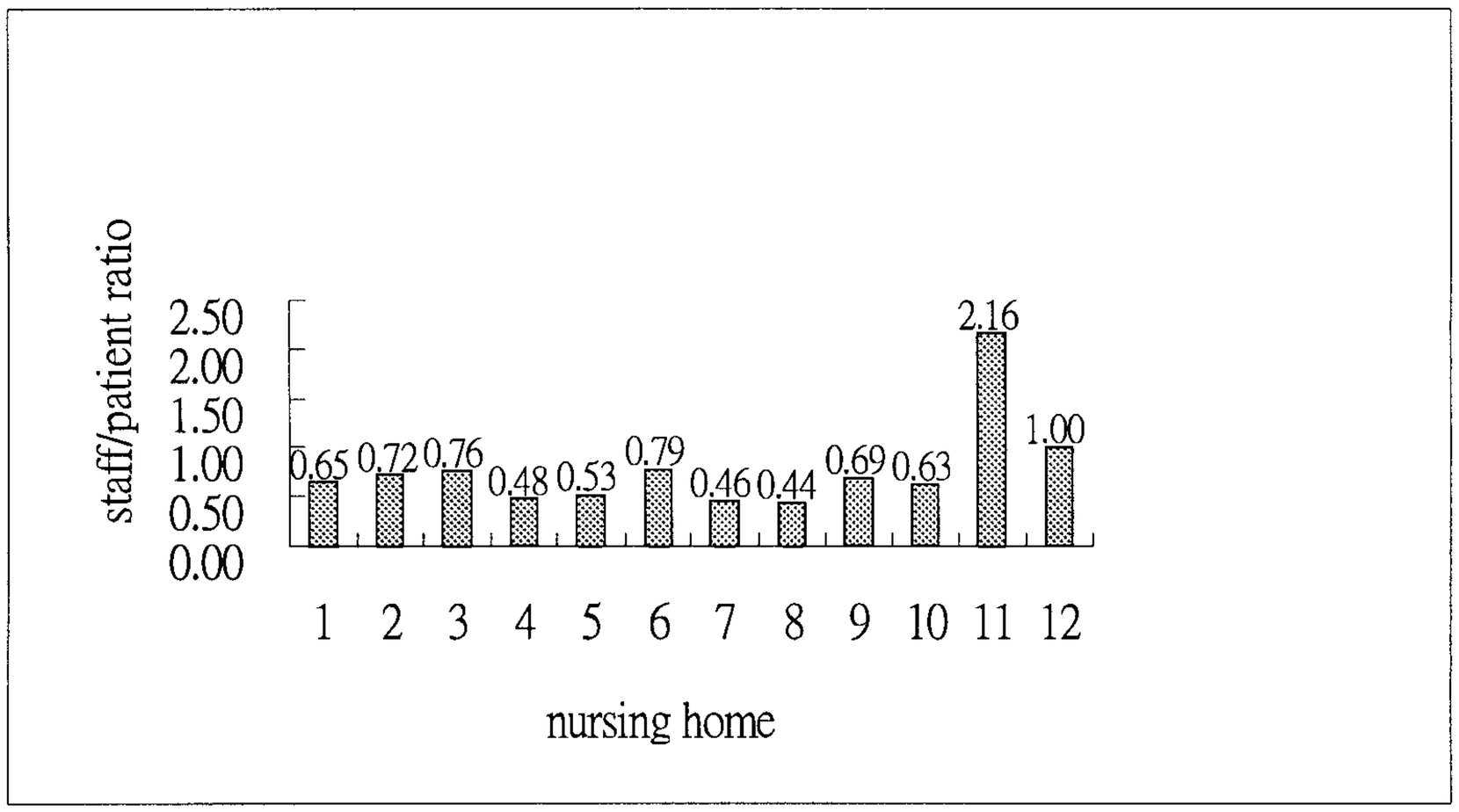
Source: Author's survey, 1998.

Fig. 5-2. Government health and medical care expenditures, FY 1994



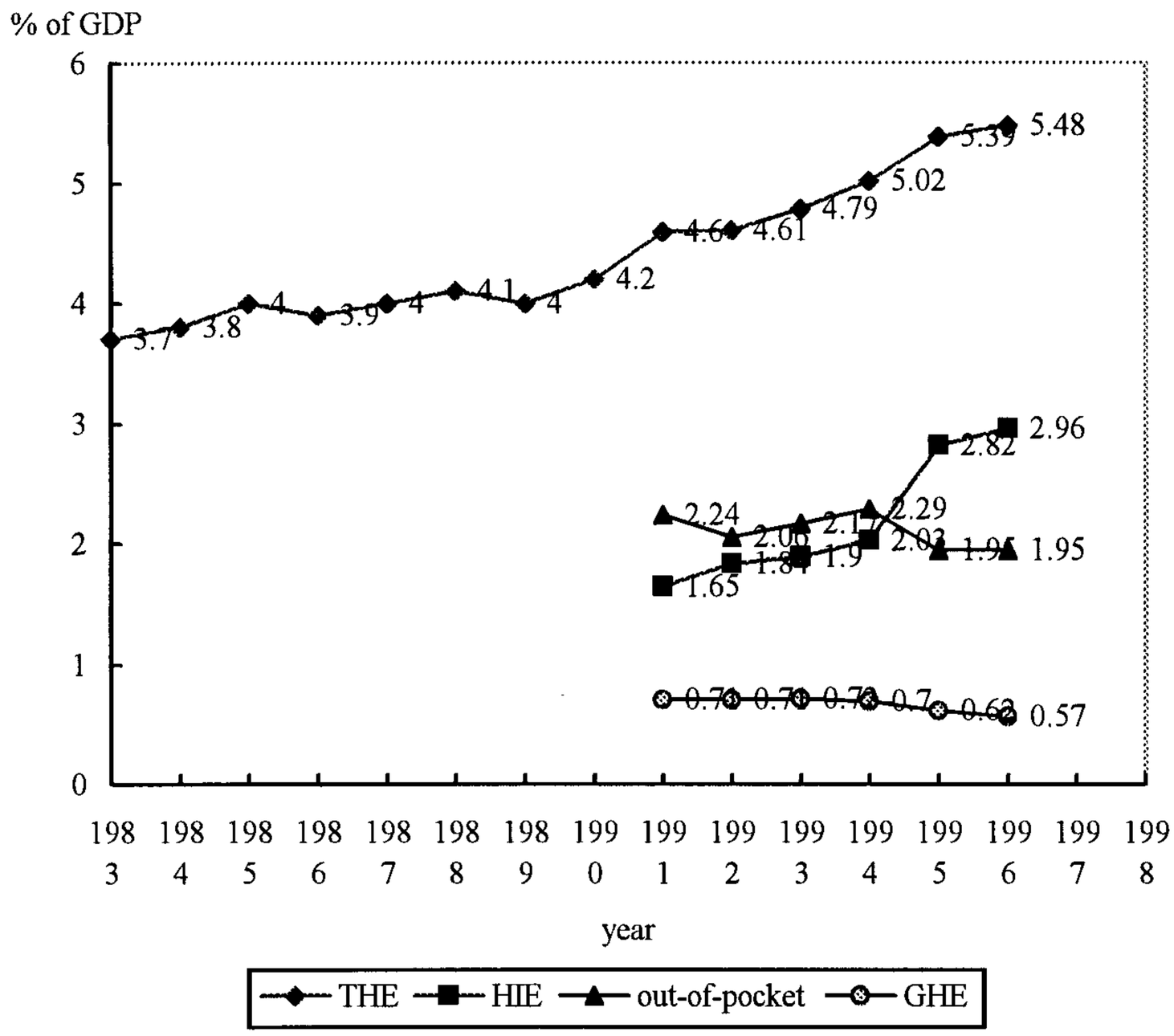
Source: DOH, Taiwan, 1996

Fig. 5-3. Staff/patient ratio of the sample registered nursing homes



Source: Author's survey, 1998.

Fig. 5-5. Total Health Expenditure as percentage of Gross Domestic Product (GDP): 1983-1996.



Ps. THE: Total Health Expenditure
HIE: Health Insurance Expenditure
Out-of-pocket: Health Expenditure paid by people's out-of-pocket money
GHE: Government Health Expenditure

Sources: The Central Bureau of National Health Insurance, 1998.

CHAPTER 6

DEMAND SIDE—RISK OF INSTITUTIONALIZATION

The problem of an ageing population in Taiwan has been explored in previous chapters. This research aimed to find some of the risk factors for institutionalization, especially those factors which may be significant for nursing home patients in Taiwan. A nation-wide survey, "Social Status Report of Senior Citizens, 1996" (SSRSC), is conducted every two years by the Ministry of Interior (MOI) and the Department of Health (DOH). Some secondary data from this survey has been used as a basis for comparison.

In this chapter, the characteristics of elderly people in the community are described and compared with those of the nursing home patients. The latter comes from the primary data in the field work, i.e., basic information on a sample of patients in the sample nursing homes. It is based on questionnaires which were completed by the primary nurses (see chapter 4.4). Then, the risk of institutionalization is discussed based on the two data bases mentioned above. The chapter concludes with a discussion of the findings.

6.1 COMMUNITY DATA SET

Taiwan area had a total population of 21,504,000 at the end of 1996. The total number of elderly people aged 65 and over was approximately 1,690,000 (7.86% of the total population). For every dependent elderly person, there were eight people aged 15 to 64 potentially available to look after each of them. This figure is estimated to drop quickly in the future. The percentage of elderly people increased by 0.76% between 1993 and 1996, i.e. a growth of 199,000 persons in three years. Among these elderly people (aged 65 and over) in Taiwan, 56% of them suffered from chronic diseases and one in ten needed care assistance from others (SSRSC, 1996).

The "Social Status Report of Senior Citizens, 1996" which took place from 17th to 23rd, November, 1996 has been used as the community data set for the elderly people in Taiwan. SSRSC, started in 1986, but was not the name which was originally used because it was designed for a manpower resources survey. The social status of elderly people was added to this survey after 1989 and become an important focus in the 1996 survey. In SSRSC, 1996, the sample size was 19,638 households in Taiwan Area (excluding Kimen and Mazui). The sample represented (sampling rate) 3.58 ‰ of the population. All family members aged 15 and over in each sample household were interviewed (criminals and soldiers were excluded).

6.1.1 General information

The characteristics of the population of elderly people varies each year. For the purpose of analysis, the author extracted data on elderly people (who were aged 65 and over when SSRSC was conducted in 1996) from the SSRSC to form the secondary data base (Table 6-1). Information extracted from this data base is shown as follows:

The number of elderly people (aged 65 and over) from the SSRSC, 1996 was 7,947. The age profile of them was:

- 65-74 years: 69.1% (5,488 people)
- 75-84 years: 26.9% (2,138 people)
- 85 and over: 4% (321 people)

In terms of their gender:

- Male: 54.3% (4,314 people)
- Female: 45.7% (3,633 people)

The sex ratio (male: female) is 1.2:1.

Regarding the marital status of the elderly people in community, 61% of them were married; 32.4% were widow(er)ed; another 4.8% were single and the other 1.8% were divorced or separated when the census was conducted.

- Married: 61% (4,849 people)
- Widow(er)ed: 32.4% (2,572 people)
- Singled: 4.8% (382 people)

●Separated/Divorced: 1.8% (144 people)

In terms of their gender and marital status, 49.8% of the female elderly were widowed, much higher than that of male elderly (17.6%).

The educational level of the elderly people in the community tended to be low on average.

●Illiterate or self-educated: 44.2% (3,517 people)

●Primary school level: 34.5% (2,740 people)

●Junior/Senior high school level: 13.0% (1,034 people)

●College and over: 8.3% (656 people)

Most of the elderly people who were illiterate were female (60%), while 18.6% of male elderly were illiterate.

Information about numbers of children of the elderly people was not available from this SSRSC data base. According to Wu and Chang (1997), in 1993, 95.1% of elderly people aged 65 and over in the community had at least one child.

Table 6-1. Demographic characteristics of elderly people in Taiwan (SSRSC, 1996)

	Female	Male	Total	
	No.(%)	No.(%)	No.	%
Gender	3633(45.7)	4314(54.3)	7947	100
Age				
65-74	2409(66.3)	3079(71.4)	5488	69.1
75-84	1042(28.7)	1096(25.4)	2138	26.9
85+	182(5.0)	139(3.2)	321	4.0
Mean±SD	72.77±6.31	72.03±5.67	72.37±5.98	
Living status				
Living alone	373(10.27)	644(14.93)	1017	12.8
Living with spouse only	667(18.36)	1020(23.64)	1687	21.2
Living with spouse & unmarried children	289(7.95)	731(16.94)	1020	12.8
Fixed living with offspring	2061(56.73)	1701(39.43)	3762	47.3
Living with offspring in turn	147(4.05)	88(2.04)	235	3.0
Living with relatives / friends	59(1.62)	57(1.32)	116	1.5
Public institutions	3(0.08)	30(0.70)	33	0.5
Private institutions	24(0.66)	14(0.32)	38	0.5
Others	10(0.28)	27(0.63)	37	0.5
system missing		2(0.00)	2	0.0
Marital status				
Single	23(0.6)	359(8.3)	382	4.8
Married with spouse	1760(48.4)	3089(71.6)	4849	61.0
Widow(er)ed	1811(49.8)	761(17.6)	2572	32.4
Divorced/Separated	39(1.1)	105(2.4)	144	1.8
Educational level				
Illiterate	2170(59.7)	804(18.6)	2974	37.4
Study by self	250(6.9)	293(6.8)	543	6.8
Primary school	895(24.6)	1845(42.8)	2740	34.5
Junior high	144(4.0)	549(12.7)	693	8.7
Senior high	99(2.7)	242(5.6)	341	4.3
Polytec. high school	18(0.5)	157(3.6)	175	2.2
Polytec. college	36(1.0)	183(4.2)	219	2.8
University	21(0.6)	239(5.5)	260	3.3
Graduate school	0(0.0)	2(0.0)	2	0
Total	3633(45.7%)	4314(54.3%)	7947	100.0

Source: SSRSC, 1996 (with some further analysis undertaken by the author).

6.1.2 Physical and mental health

According to the DOH estimates, which were based on at least having difficulty with any one item of Activities of Daily Living (ADLs), there were approximately 95,590 elderly people in need of assistance with self-care in 1997. This was 5.5% of the people aged 65 and over in Taiwan (DOH, 1998).

According to the SSRSC, 1996, the health status of elderly people in the community was as follows: 45.8% reckoned that their health was good and seldom felt ill. 54.1% (i.e. 4,302 persons in this data base) had felt unwell in the previous three months. Among the 4,302 people, the prevalence of diseases which elderly people suffered from in Taiwan ranged from cardiovascular disease to psychological problems. The first four major diseases reported by the elderly people were: one third (33.0%) of them stated that they suffered from the cardiovascular disease, 16.2% of them suffered from the skeletal muscular disease, next came the endocrine or metabolic disease (10.8%) and then the gastro-intestinal (GI) problems (10.1%). Table 6-2* gives the details. This pattern was found to be similar to the pattern of chronic sickness of elderly people in the UK. Musculoskeletal system, heart and circulatory, respiratory, endocrine and metabolic, and digestive system were the five leading problems in 1995 (The Stationary Office, 1997).

According to the SSRSC, 1996, although many suffered from some chronic disease, 90.3% of them stated that they were able to take care of themselves. The remaining 9.7% (419 persons) said they need to be taken care of for help with daily living. That is, about one in ten of elderly persons who felt unwell (which was 54.1% of the elderly people in the community) needed help with daily living in the community (54.1%*9.7%). Thus, it was about 92,000 persons (5.4% of the elderly people) in the community. This figure was consistent with the estimation of the DOH in 1997.

Activities of Daily Living (ADLs), which is a scale developed by Katz et al. in 1963 (Bowling, 1997), was used to measure the functional disabilities of this group of elderly people in SSRSC, i.e. 419 elderly people in the community. The results from SSRSC indicated that about 60% of them had at least three items or more with ADLs difficulties. That is, more than 50,000 elderly people were under this criteria in Taiwan. Wu et al. (1996) undertook a similar investigation among 2,892 non-

institutional elderly people who felt unwell and produced consistent findings. It was estimated that there were at least 40,000 elderly people whose disability was under this restrictive criteria (i.e. with three or more ADLs difficulties) in the community. If the criteria is based on two items or more ADLs difficulties which was widely used in USA, it was estimated that 53,000 elderly people in the community needed long-term care (Wu et al., 1996). In terms of the individual items of ADLs, the SSRSC showed that among the 419 elderly people in the community who said they did not feel well, help was needed for the following (Table 6-3*):

- Locomotion: 80%
- Bathing: 77%
- Dressing: 65%
- Toileting: 52%
- Feeding: 50%

According to the SSRSC, only 10% of them were living in institutions when the survey was conducted in 1996, the other 90% still lived in their own homes and received various kinds of help.

In terms of where the elderly person who needed assistance lived, the SSRSC showed that most (77.1%) of the disabled elderly people living in community were still 'in home cared for by family members'. there were, however, 1.7% living in their own homes with no help at all (Table 6-4). That is, about 1,700 elderly persons who needed help still lived by themselves in the community. With regard to the willingness to enter an institution, the question "Are you willing to move into an institution?" was asked of those elderly people who felt unwell, needed help with daily living and lived in their own homes. Although this group of elderly people felt unwell and needed assistance, their willingness to be cared for in institutions was very low. Only 16% answered 'yes' while 84% of them said 'no'.

Table 6-4. Place where the elderly people who needed care assistance in the community lived

	Female	Male	Total	
In institutions (when survey conducted)	No. (%)	No. (%)	No.	%
Chronic care in hospitals	10(4.4)	7(3.7)	17	4.1
In long term care institutions	15(6.6)	9(4.7)	24	5.7
others	1(0.4)	0(0.0)	1	0.2
In elderly people's own homes				
In home cared for by family member	176(77.2)	147(77.0)	323	77.1
In home cared for by hired-helper	18(7.9)	15(7.9)	33	7.9
In home cared for by relatives/friends	5(2.2)	7(3.7)	12	2.9
In home cared for by self (no carer is available)	2(0.9)	5(2.6)	7	1.7
others	1(0.4)	1(0.5)	2	0.5
TOTAL	228(54.4)	191(45.6)	419	100

Source: SSRSC, 1996 (with some further analysis undertaken by the author).

6.1.3 Medical situation

According to the SSRSC, 1996, within a three month period of time in 1996, 76% of elderly people had visited a doctors' clinic at least once (Table 6-5*). For this group of people, they visited doctor's clinics 6.36 times on average. 5.2% of the elderly people in the community been hospitalized within this three month period. On average, they spent 16.7 days in hospitals and it cost them NT. 1,614 (SD=5,804)[1]. The average time for those who had been hospitalized was 1.32 times in three months. Among them, 4% of them had been hospitalized once, 0.8% twice and 0.9% three times or more. In terms of the gender, the average number of times the female elderly people who had visited doctor's clinics within the three month period was 6.67 times and the corresponding figure among male was 6.08 times. The average number of time the female elderly people had been hospitalized within the three month period was 1.29 times, and for elderly male was 1.35 times.

[1] According to SSRSC, the average cost paid by elderly people themselves for hospitalization have been reduced from NT. 3412 to NT. 1642 (including Kimen and Mazui) (i.e., decreasing NT. 1770 per person on average) since the launch of NHI.

6.1.4 The role of elderly people in family

According to SSRSC, 1996, 98.63% of elderly people currently live in the community while only 0.42% of them live in public institutions and 0.48% live in private institutions. Table 6-6* shows the living status of elderly people in Taiwan. The majority (84.37%) of them currently lived with either their children and/or spouses and 12.8% lived alone. This generation of elderly people born before World War II have very close connections with their families and locale and very few of them have had much experience of leaving their hometown to work or study or live away from their families. Few can accept the idea of leaving their families for institutional care (SSRSC, 1996). It is more common for elderly females to live with their offspring (60.78%) than men (41.47%). Regarding their educational level, it is also interesting to note that fewer elderly people with higher educational level tended to live with offspring (Table 6-6*). There were 29.1% of elderly people with college or higher level living permanently with their offspring while 51.1% of elderly people with primary school or lower level did so.

The SSRSC revealed that the traditional role for this generation of elderly people in the family was "stay in the house", "do nothing in particular", for some people "take care of the housekeeping" or "help with shopping". As mentioned before, changes in the environment have made traditions such as several generations living together and 'raising children to have some one to look after you in your old age' outmoded. In the past, everyone thought that the family was the answer for all problems. The reason why elderly Taiwanese tend to look to their children to care for them in old age is that Taiwanese society continually stresses the idea of filial piety and encourages the generations to live together. Moreover, nothing has come along to replace this model. This is a major reason why today's elderly people hold onto their family so tightly. Therefore, when the question "What is the priority for the government to do for the welfare of elderly people" was posed, the first priority mentioned by elderly people was 'acute health care', then 'home care', 'government-subsidized pension' and then 'long-term health care' (Table 6-7* gives the detail).

"The *ideal* living pattern for elderly people" was also investigated in SSRSC, 1996. The majority (72.6%) of the elderly people aged 65 and over would prefer to

live with or next door to their children. Two thirds (64.2%) preferred to 'live with children', 4.5% elderly people to 'live in turn with different children' and 3.9% to 'live next door to their children'. Another 15.4% of them preferred to live with their spouse only, 6.6% preferred to live alone. 1.1% would like to live with relatives/friends and only 4.1% of them would like to live in care institutions (2.7%) or in specialized housing designed for healthy older people (1.4%).

6.1.5 The income of elderly people

Considering the main financial resources of elderly people in the community of Taiwan, for 48.5%, their main income was from their children. 25.6% said their main income was from their salaries (7.2%), savings of themselves or from spouses (18.4%), 15.7% said their main income was from their own occupational pensions, while less than 8% of them relied upon social welfare (SSRSC, 1996). In terms of their educational level, it was interesting to note that the higher the percentage of elderly people who relied on their children for living expenses, the less were their educational levels. That is, elderly people with higher educational level relied more on themselves than on their children. According to the SSRSC (1996), the financial resource of elderly people in the community was measured by the importance score. The importance score was calculated by an equation of 1*the first prior income source + 2/3*the second prior income source + 1/3 *the third prior income source, according to the sampled elderly people said about their priorities of income source. Therefore, for the group of elderly people whose financial resource mainly came from their children, the importance score decreased among those with higher educational level (For example, the importance score was 68.17 among the educational level of junior high and below and the figure decreased to 34.50 for college and over level). For the group of elderly people who mainly relied on their own occupational pensions, the importance score increased from 13.22 among those with junior high and below level to 63.02 among those with college and over level.

Regarding the monthly income, Wu and Chang (1997) in their series study: *Health Care for the Elderly in Taiwan: A Fact Book* revealed that 37.2% of the elderly people who relied on themselves for income earned less than NT. 10,000, while 71.2% of the elderly people whose income mainly relied on their children

earned less than NT. 10,000. If the source of income was from elderly people themselves or from spouses, their monthly income was apparently higher than the income of elderly people whose income came from their children. But surveys also reveal that each year elderly people relied more and more on pensions and social welfare. For example, according to SSRSC (1996), the percentage of elderly people whose main income came from their children has decreased 4% from 1993 to 1996 while there has been an increase of almost 3% of elderly people whose main income came from their own occupational pensions.

6.1.6 Social welfare

The question "Would you be willing to use any of the following social welfare facilities if you needed them?" was asked of the elderly people aged 65 and over in the community. Slightly more than 10% of them stated that they would go to an institution if necessary (SSRSC, 1996), while more than 77% of them said they would not want to use any of the facilities. Among these social welfare facilities which elderly people would like to use, residential care, home care, recreation centers for elderly people were the most commonly mentioned followed by apartments especially for elderly people and nursing homes (Table 6-8).

Among the existing welfare facilities and benefits for elderly people, knowledge about and utilization of them by elderly people was investigated in SSRSC (1996). In terms of understanding about nursing homes, more than 75% of the elderly people did not know what they were compared with only 36% who did not know about residential care. One fifth (20.5%) of elderly people who knew what a nursing home was would not use it for varied reasons such as unwillingness, unable to use (e.g., because of geographical reason) or did not know how to apply. Only 4.5% of the elderly people in the survey had ever utilized nursing home services. Table 6-9* give the details of the knowledge and utilization of the social welfare by elderly people in Taiwan.

Table 6- 8. Facilities which elderly people said they would be willing to use

	No.	%	Facilities which elderly people said that they would be willing to use (%)
Willing to use			
Home care	243	3	14
Nursing home	67	1	4
Day care	59	1	3
Residential home	425	5	24
Residential health care*	402	5	22
Recreation centre	236	3	13
Service for elder	227	3	13
Elder apartment	137	2	8
subtotal	1796	23	100
Not willing to use any of these facilities	6151	77	
Total	7947	100.0	

* This type of residential homes also cover intermediate care.
Source: SSRSC, 1996 (with some further analysis undertaken by the author).

6.2 THE PROFILE OF NURSING HOME PATIENTS IN TAIWAN

It was estimated from the national survey (SSRSC, 1996) that there were about 92,000 elderly people in Taiwan who needed long term care and about 10% of them lived in institutions (please see 6.1.2 and Table 6-4). In order to understand which group of elderly people entered nursing homes, the characteristics of nursing home patients have to be considered. This section aims to build up a profile of the people who entered nursing homes based on a sample of 378 patients aged 65 and over in 12 registered nursing homes in Taiwan between February and September, 1998 (see chapter 4.3.2). It was found that elderly people aged 65 and over represented more than 90% of nursing home patients in Taiwan, while the other patients (aged 65 and under) were admitted because of varied reasons such as car accidents, trauma and being in a persistent vegetative state. This section describes the characteristics of nursing home patients in terms of their predisposing (e.g. age, gender, marital status), enabling (e.g. educational level and income status) as well as their need factors (i.e. health status and dependency level) based on the Andersen's

model described in chapter 3.

In this study, all three types of nursing home in Taiwan were included. As noted previously, type A is the public hospital-based nursing homes, type B is the private hospital-based nursing homes and type C is the freestanding nursing homes. This section, therefore, also distinguishes the three types of homes and analyzes them in the following section. (NB. type A homes included three homes with 110 patients; type B homes included four homes with 165 patients and type C homes included five homes with 103 patients.)

6.2.1 Age of patients

The average age of elderly people who entered the registered nursing homes was 79.4 years in which Type A homes (hospital-based public sectors) was 78.9 years; Type B homes (hospital-based private sectors) was 79.8 years and Type C homes (freestanding nursing homes) was 79.1 years. The average age revealed very little about the variety found in the different sectors. The range of ages among the elderly patients overall in the nursing homes was 65 to 98 years. In line with similar studies (Challis & Bartlett, 1987; Williams et al., 1992) and for the purpose of analysis, an arbitrary divide was imposed, splitting age into three categories: elderly people aged from 65 to 74 years; elderly people aged from 75 to 84 years and elderly people aged 85 and over. Table 6-10 gives the age and gender break down in each category.

Table 6-10. Age distribution of patients in nursing homes

Categories of age	Female (%)	Male (%)	Sex Ratio (female : male)	Total
65-74	55 (54%)	46 (46%)	1.20:1	101 (100%)
75-84	122 (65%)	67 (35%)	1.82:1	189 (100%)
85 and over	63 (72%)	25 (28%)	2.52:1	88 (100%)
TOTAL	240 (63%)	138 (37%)	1.74:1	378 (100%)

Mean of age (± SD) = 79.36 ± 6.93

Source: Author's survey, 1998.

6.2.2 Gender

The rate of female to male patients in nursing homes was two to one, i.e., 63.5% female and 36.5% male (Table 6-10). Men were less likely to enter nursing homes than women, particular those age over 85. Among the 75-84 age group, the ratio of females to males was 2:1 and for the group of age over 85 it was nearly 3:1 (Table 6-10). The sex ratio found in this study is a little different from some research in the UK (e.g., Phillips, 1992). However, before the process of entering nursing home for women and men is explored, this may relate to the different life expectancy between men and women (i.e., In Taiwan, the life expectancy was 72.1 among men and 78.0 among women in 1995). Table 6-11 shows the gender distributions of elderly people in different types of homes.

Table 6-11. Gender of elderly patients in different types of home

		TYPE			Total
		A	B	C	
GENDER	Female	65(59%)	104(63%)	71(69%)	240(63%)
	Male	45(41%)	61(37%)	32(31%)	138(37%)
Total		110(100%)	165(100%)	103(100%)	378(100%)

Ps. Type A: Public hospital-based nursing home; Type B: Private hospital-based nursing home; Type C: Freestanding nursing home.
Source: Author's survey, 1998.

6.2.3 Marital status

In Phillips' study (1992) in the UK, the majority of elderly people were widowed and "This highlights the traditional association between bereavement and the need for care." (Phillips, 1992, pp.96). In this study, Table 6-12 shows that more than 50% of elderly people in nursing homes of Taiwan were widowed. Another 43% of them were married with spouses and only 2% of them were either single, separated or divorced. In the group of widowed elderly patients, the number of women was much greater than that of men and in the group of married elderly patients, the numbers of women and men were equal. This finding is somewhat different from the Phillips' study in the UK (Phillips, 1992) but shows similar trends. Table 6-13* shows the gender and marital status in the different types of homes.

Table 6-12. Gender and marital status of elderly patients in nursing homes

	GENDER		Total
MARITAL STATUS	Female No. (%)	Male No. (%)	
Single	1(25%)	3(75%)	4(100%)
Married	81(50%)	81(50%)	162(100%)
Widow(er)	155(76%)	49(24%)	204(100%)
Separated & divorced	1(25%)	3(75%)	4(100%)
Unknown	2(50%)	2(50%)	4(100%)
Total	240(63%)	138(37%)	378(100%)

Source: Author's survey, 1998.

6.2.4 Race, religion and residence

In this study, approximately 17.2% of the elderly patients were mainlanders, 74.3% of them were Fukienese and the rest of them were Hakka. Hakka people locate in certain areas of Taiwan, so the percentage of Hakka people in nursing homes of those areas was much higher than in other places. The percentage of mainlanders is different from Wu's study of nursing homes in Taipei city (1997) in which 38.5% of the nursing home residents were mainlanders. The explanation for this difference is probably because the two studies covered different areas. However, the percentages of mainlanders in nursing homes in these two studies were concurrently higher than older mainlanders (aged 65 and over) in the community which was 8.6% (excluding Taipei city) in Wu's study.

In terms of the religion, 46% of the elderly patients in nursing homes believed in folk religion, 30% of them believed in none and 32% of them believed in other religions such as Catholicism...etc.

With regard to their residence prior to admission, nearly 58% of the elderly patients in nursing homes came from rural areas, while the rest (42%) came from urban areas. Previous research showed that rural elders were more likely to enter a nursing home than elders living in suburban and urban areas (Coward, Netzer, and Mullens, 1996; Coward, Horne and Peek,1995; Peek, C.W. et al, 1997) and this may be partly related to fewer long-term care resources being available in rural areas. Wu (1996)'s study of public attitudes toward long-term care arrangements reported that

rural residents in Taiwan were more likely to select home-based (i.e., family-based) care and less likely to select community-based and institutional care. As Peek et al. found, rural elders may be more likely to experience discrepancies between their preferred mode of long-term care and the actual outcomes that they may ultimately experience (Peek, C.W. et al, 1997). In Taiwan, the reasons need further research.

6.2.5 Educational level

Nearly 80% of the elderly patients in nursing homes had an educational level below primary school (Table 6-14*). Elderly people with college and over educational levels comprised 9%. Public hospital-based nursing homes had a higher percentage (21%) of elderly patients with higher educational levels while in freestanding nursing homes, the percentage was 4%. Table 6-15* shows the differences of educational level in three types of homes.

6.2.6 Social class

Social class has been reported to have influence on nursing home entry. For example, Lee et al.(1997) reported that in Korea, the upper classes were significantly more likely to have placed their demented elder in a nursing home, whereas the low social classes were more likely to continue taking care of their demented elder at home. The social class of a patient was based on their former occupation in this study. However, in many instances, it was difficult to categorize patients in terms of social class, not least because the definition usually relied on husband's occupation and some had been retired or widowed for many years. All the patients who were interviewed were asked about their occupations and the occupations of their spouses. Table 6-16a* and 6-16b* show the former occupations of the elderly patients and their spouses. As we can see, female patients were often housewives undertaking unpaid family work, while 45% of the male patients were employers before retirement. In terms of the financial resources of the elderly people in nursing homes, most (70%) indicated that their financial resources were mainly given by their adult children, then from their occupational pension (15%) followed by investments & savings (8%). This result was consistent with Hurng et al.'s (1991) study for 637

elderly people in four communities of Taiwan but different from the SSRSC survey in 1996. In SSRSC (1996), the financial resources of elderly people in community which came from their adult children accounted for only 48.5%. This result may be an indication that the financial dependence of the elderly people may relate to the decision about a placement in a nursing home.

6.2.7 Source of patients

Where elderly patients in nursing homes came from is shown in Table 6-17*. Almost half (47%) of the elderly people admitted to nursing homes came from their own homes while those that had come straight from hospital accounted for 41% of the total. Although only 8% had come from nursing homes or other residential homes, it was apparent that there was some movement between care institutions.

Observing the elderly people in the three types of homes, it was apparent that in type A homes, more patients (58%) came from hospitals than the other two types of homes. The majority of Type B and Type C patients came from their own homes. It may be that the public hospital-based nursing homes in Taiwan were regarded as more reliable for patients who were referred from hospitals at this stage. Of the patients admitted directly from the community, most of them came from their own homes (47 %). In terms of the source of information about patients, they mainly came from the patient's family (77%) and the detail was provided by word of mouth (71%). Table 6-18a* and 6-18b* give the detail.

6.2.8 Length of stay

As Liu and Manton (1983) found, a cross-sectional study of residents in nursing homes includes a mixture of short stay and long stay residents. Because registered nursing homes in Taiwan have been in existence for such a short time, 59% of elderly patients had been admitted for less than one year, another 24% had been there for more than one but less than two years and only 6% had been in nursing homes for three or more years (Table 6-19*). Looking at changes in the health of patients in the survey who had been in nursing homes for varying periods, there were no significant differences overall in the rate of improvement for the

various length of stay categories. However, those who had been there for 6-12 months did show some indication of a higher rate of improvement (46% as against 36% for the whole sample). For those who stayed longer than one year, the percentage of patients whose health condition improved had decreased slightly. For the group of elderly patients who had stayed less than one year when the study was conducted, some of them, of course, stayed only temporarily for a variety of reasons and then moved back to their own homes or other places. However, the results seem to indicate that nursing home care can improve health in the short term (N.B. Clinical experience suggests that 6 weeks was the minimum amount of time needed between admission and the second assessment to observe a change in clinical status potentially attributable to the intervention (Garrard, et al., 1993)). For those staying longer, there appeared to be no improvement in health. These patterns of length of stay and changes in health found in this study have also been shown in previous studies. For example, Katz et al. (1985) reported that a long stay suggested that the objective is to maintain the residual functioning or prevent progressive deterioration of functioning; rehabilitation is no longer likely. A previous study in US which focused on length of stay also provided evidence that the patients whose nursing home stay was 12 months or less had a fivefold likelihood (15%) of being discharged to the community compared with long stay residents (3%) (Garrard, et al., 1993).

6.2.9 Diagnoses/problems

According to Wu's (1994) research in Taiwan, the estimated prevalence rate for elderly people with one or more chronic conditions was 73%. The prevalence rate for the elderly people with 2 or more chronic conditions was 44.5%. The result indicated multiple conditions were common among older people. In this study, it was found that elderly patients in nursing homes had at least two diagnoses of chronic diseases on average. The main health problems were cardiovascular diseases (including stroke, hypertension, heart diseases), neurological diseases (including dementia, Parkinson disease, epilepsy, myasthenia gravis), diabetes, skeletal muscular diseases (including arthritis, osteoporosis, fracture, systemic lupus erythromatosis (SLE)) and urogenital diseases. The primary nurses in nursing homes stated that the main need for many patients in homes was for rehabilitation activities.

This was because for these elderly patients with multiple chronic illness, although they did not expect to be cured, the expectation was that they maintained their health and did not get worse.

6.2.10 Health status

The health assessments for elderly patients in the sample nursing homes included their physical status, mental status, activity status, Activities of Daily Living (ADLs) and the assessments of the JUSSR. These assessments were based on the daily observation of elderly patients' primary nurses along with the patients' diagnoses.

6.2.10.1 Physical status

Nearly half of the patients had speech problems. Joint contraction was also prevalent among 44% of them which partly explained the high prevalence of hemi-paralysis (42%) or paralysis (18%) among them. 41% of the patients were confused, 7% of them were in a coma and 35% of them were inserted with at least one life sustaining tube (such as N-G tube, Trachea, Catheter). This result indicated the severity of health problems of the patients in nursing homes of Taiwan.

6.2.10.2 Mental status

From another check of the elderly patients' mental status which was based on the primary nurses' observation and assessment, it was estimated that 45% of the patients in nursing homes were 'sometimes confused and sometimes conscious', 21% of them were 'confused all the time' and only about one third (34%) of them did not loss their consciousness, i.e., they were 'never confused'[2].

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[2] Confusion was rated on three levels.

1) Confused all the time: included patients who were totally disoriented in time and place; were unable to communicate during the interview and at most other times and patients with no short or long term memory recall.
2) Sometimes confused and sometimes conscious: included patients who were sometimes disoriented in time and place or had some difficulty with memory recall. Patients in this group may be found that there were conflicts between what they said.

6.2.10.3 Activity status

The primary nurses estimated that 40% of the elderly patients were totally bed-bound, 44% of them needed help with activities and only 16 % could help themselves for most activities.

6.2.10.4 Activities of Daily Living (ADLs)

The majority (86%) of the patients in nursing homes had difficulties with three or more items of activities of daily living. Table 6-20a* and 6-20b* show the items of difficulty for ADLs of them in the three types of nursing homes ($p<0.05$). It was found that, in general, difficulties were presented with more items in Type A and Type B homes than in Type C homes. Compared with the findings of Wu (1994), about 8.8% of the elderly people in community had difficulties with one or more ADL tasks and the figure was 9.2% in the SSRSC (1996) community survey. The severity of problems for the patients in nursing homes was very much higher than for elderly people in the community. Closer examination of the difficulties for each item in ADLs, it was found that the majority of the elderly people in nursing homes had difficulty in bathing (94%), locomotion (93%) and dressing (85%).

6.2.10.5 Joint Unit for Social Services Research (JUSSR) Dependency Level

The dependency levels of the elderly patients in nursing homes were assessed using a scale based on that devised by the Sheffield Joint Unit for Social Services (Booth et al, 1982). Information was obtained for three main categories including self care, orientation, and social integration (see chapter 4.5.1).

The nurses who took care of the patients assessed each patient's ability to perform various functions within these categories and the amount of assistance required to meet their needs. For each elderly patient, their levels of self care, orientation and social integration were scored as shown in Appendix B

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3) Conscious or never confused: included a number of patients who were mentally alert with good memory recall and were totally aware of their environment and situation.

(Questionnaire part A: JUSSR sheet). The possible ranges of scores achieved in way were: self care 0-15, orientation 0-12, social integration 0-9, and total dependency (self care + orientation + social integration) 0-36. Adopting the same score as that of Williams et al (1991), the total dependency scores gained in this way were then sub-divided as follows:

0=Independence; 1-10=Low dependency; 11-20=Medium dependency; Over 20=High dependency.

All the information obtained was coded and analyzed using the SPSS computer software package. The results were as follows:

Self care

In terms of the mobility, the majority (72%) of the elderly patients were chair or bed bound, 46 persons (12%) were able to get about with assistance, 30 persons (8%) were able to get about alone with an aid and only 8% were able to get about alone and unaided (Table 6-21a*). Regarding continence, 269 (71%) elderly patients were incontinent of urine and faeces; 22 cases (6%) were incontinent of urine only (or has problems with a catheter) and the rest 87 (23%) cases were fully continent (Table 6-21a*). The ability for self care is shown in Table 6-21b*. It was found that bathing and using toilet were the most common problems and need maximum assistance.

Orientation

Of the total 378 elderly patients, 72 (19%) patients could understand everything said to him/her, 170 (45%) understood almost everything, while the other 136 (36%) patients could understand nothing at all. From the view of his/her ability to communicate, 37% of them were unable to be understood, 44% of them could be understood but with difficulty, only 19% could be well understood. In this study, 44% of the elderly patients had a serious speech problem and another 28% also had a mild speech problem. There were 44% (168 cases) of the elderly patients considered to be totally unaware of their surroundings and another 40% (141 cases) were partially aware of the surroundings. 44% (165) of the elderly patients were always confused and lost orientation and 40% (150) were confused at least some of the time. In terms of their memory, nearly half (49%) of them always forgot things and needed to be closely attended, another 44% of them forgot things sometimes and only 7% of them never forgot things.

Social integration

Social integration was a problem for 178 (47%) patients who had great difficulty in establishing good relationship with other patients, while another 138 (37%) patients had some difficulty in doing so. 291 (78%) patients behaved in a socially unacceptable manner for at least some of the time. Related to their high rate of being bed/chair bound, the majority (60%) of the elderly patients never helped other people or helped with things in the home, 33% (125 cases) of them could help out sometimes and only 7% (28 cases) could really help out in the home. Only 40 (11%) elderly patients were willing to do things alone, the other 89% needed encouragement from the staff to join in social activities. Over 96% of the patients could not go out alone and needed to go out with somebody else.

Dependency levels

The total dependency scores (self care + orientation + social integration) of the elderly patients in this study are shown in Table 6-21c. It was found that more than 70% of the elderly patients in the nursing homes had high dependency levels, while 20% of them had medium dependency levels and less than 10% of them were in the low dependency levels. Comparing with the related study using the same JUSSR score system (Williams et al, 1992) in the UK, it was found that the dependency levels of the patients in nursing homes of Taiwan were very much higher on average. (NB. The percentages of residents' dependency levels in the study of Williams et al, 1992 were: independent 1.4%, low dependency 30.1%, medium dependency 47.4% and high dependency 21.1%).

Table 6-21c. The total dependency scores of JUSSR

DEPENDENCY LEVEL	SCORE	NUMBER OF PATIENTS	(%)
INDEPENDENT	0	1	0.3%
LOW DEPENDENT	1-10	35	9.3%
MEDIUM DEPENDENT	11-20	75	20.0%
HIGH DEPENDENT	21-36	267	70.6%
		(n=378)	100.0%

Source: Author's survey, 1998.

In order to discover any differences in dependency levels in different groups, the sample population was divided in terms of their age, gender, length of stay, type of home and source of admission. The only group to show a significant difference ($P<0.05$) were those patients from a different source of admission. Of those patients admitted from hospitals, 80% (124) were highly dependent, similarly among those from nursing or residential homes 81% (26) were highly dependent, while for those admitted from their own homes only 61% (109) were in this category. Note also medium dependency is higher in this latter group (Table 6-22a*).

Observing the individual categories of self care, orientation and social integration in JUSSR, it was also found that there were significant differences for patients admitted from different sources ($p<0.05$) (N.B. In order to carry out this analysis, it is necessary to collapse the table and combine the categories of coming from hospitals and other institutions). In each case, those from their own homes exhibited a lower percentage in the high dependency category (Table 6-22b*). Among them, it was found that orientation shows the strongest relationship, while the other two categories had higher percentages. These results seem to indicate that the family is less able to cope with a high level of dependency compared with an institution and so have a lower threshold to their caregiving.

Changes in dependency levels

The primary nurses who took care of the patients in the nursing homes were asked to describe the patients' overall dependency levels, and whether there had been any change in the patients' condition during their stay in nursing homes. In terms of the dependency, the primary nurses estimated that over 50% (194) of their patients were highly dependent, 26% (99) of them were of medium dependence and

22% (83) were of low dependence. Regarding their changes since coming into the nursing home, nearly 50% (184 cases) of their patients were thought not to have changed their dependency level during their stay, 16% (59) had deteriorated, while 36% (134) had improved. Table 6-23* shows the changes in patients dependency level as assessed by the primary nurses (N.B. In order to further analyze this table, it is necessary to collapse the table and combine the categories of no change and deteriorated groups). The result also shows that the changes were significant ($P<0.05$) among different levels of dependency in each of the categories. In general, patients with higher dependency deteriorated more than patients with lower dependency during their stay and conversely, the less dependent patients had a higher chance of improving their health condition. It may be that the patients with lower dependence were in better condition and their health status were easier to improve. This result interestingly reflects the findings of Chiu et al. (1997) of 336 hospitalized patients with stroke and their families in Taiwan three months after being discharged. This indicated that the ADL scores of the patients with severe physical function disability did not improve. However, patients with moderate physical function disability improved significantly by the end of the third month of their follow up.

Spector et al. (1996) showed in his study that approximately 15% of nursing home patients could be diverted to lower levels of care. In this research, the nurses assessed that the majority (83%) of the patients were thought to be appropriately placed to remain in the nursing home and for 63 (17%) patients, it was thought that it was possibly inappropriate for them to remain there. This was mainly because either their health had improved or some of them were too dependent (e.g. in a persistent vegetative state) or because their special needs such as for osteopathy, speech therapy and acupuncture could not be met in the nursing home.

6.3 RISK OF INSTITUTIONALIZAITON

According to previous research and from the profile of the sample of nursing home patients, many factors are associated with institutionalization. These include advancing age, race, unavailability of informal support, living alone, being unmarried or widowed, having no help from or contact with relatives, certain diagnostic

conditions, dependence in activity of daily living, etc.. Other patient-level determinants of institutionalization have included being hospitalized, having contact with the health services system in general or having a favorable attitude toward nursing home placement. The overriding concern in all of these studies is to determine what characteristics put a person at high risk for institutionalization. In the following section, the risk factors of nursing home placement in Taiwan were examined by comparing the elderly people in nursing homes and those in the SSRSC community survey (1996).

6.3.1 Bivariate analysis

In this section, bivariate results were first presented by comparing the sample of elderly people in nursing homes and those in SSRSC, 1996 community survey. These results shown from Table 6-24 to Table 6-33 were largely consistent with expectations. Table 6-34a* generalized the frequencies of the inventoried characteristics for the two groups of elderly people mentioned above. Obviously, there were some clear differences between the two groups of elderly people with regard to the predisposing, enabling and need factors. In order to control the age effect on each variable, the age-adjusted odds ratios were also checked as shown in Table 6-34b*.

6.3.1.1 Predisposing factors

Age was a continuous variable that reflected age at interview and range from 65 to the eldest. The average age of the elderly people in the nursing homes was found to be greater than elderly people in the community ($p<0.01$). Their mean ages were 79.4 and 72.4 years respectively. The differences increased in advanced age, especially for the group of the oldest old (aged 85 and over). There were 23% of them in nursing homes, while in the community it was 4% only (Table 6-24).

Table 6-24. Age distribution in Nursing home patients (NH) and Community data set (CDS)

Age	NH (%)	CDS (%)
65-74	101(26.7)	5488(69.1)
75-84	189(50.0)	2138(26.9)
85+	88(23.3)	321(4.0)
Total	378(100)	7947(100)

χ^2 =437.1, df=2, P<0.01
Source: NH: Author's survey, 1998; CDS: SSRSC, 1996.

Gender, marital status and race were all strongly associated with institutional residency (p<0.01). More women than men resided in nursing homes compared with their counterparts in community (Table 6-25). Similarly, more widow(er)s resided in nursing homes than their counterparts in community (Table 6-26). In terms of race, because it was not available in SSRSC, the sample of nursing home patients were compared with Wu's study in 1997. Table 6-27 shows that about 17% of the sample in nursing homes were mainlanders, while in the community the percentage was less than 8% (Wu et al., 1997).

Regarding the number of children of elderly people, it was unavailable in SSRSC, 1996. Living arrangements which is correlated to the number of children was used to compare with SSRSC data in this study. It was found that living status had no significant effect on whether elderly people were in nursing homes. Most of the elderly patients in nursing homes lived with children and/or spouses before entry which was similar to their counterparts in the community (Table 6-28).

Table 6-25. Gender distribution in NH and CDS

Gender	NH (%)	CDS (%)
Male	138(36.5)	4314(54.3)
Female	240(63,5)	3633(45.7)
Total	378(100)	7947(100)

χ^2 =45.8 , df=1, P<0.01
Source: NH: Author's survey, 1998; CDS: SSRSC, 1996.

Table 6-26. Marital status in NH and CDS

Marital status	NH (%)	CDS (%)
Single, Divorced, Separated	8(2.1)	526(6.6)
Married	162(43.3)	4849(61.0)
Widowed	204(54.5)	2572(32.4)
Total	378(100)	7947(100)

χ^2 =82.4, df=2, P<0.01
Source: NH: Author's survey, 1998; CDS: SSRSC, 1996.

Table 6-27. Ethnicity/Race in NH and CDS

Ethnicity/race	NH (%)	CDS (%)
Mainlander	63(17.2)	33(7.6)
Fukienese	303(82.8)	403(92.4)
Total	366(100)	436(100)

Ps. There were 12 missing data in NH; χ^2 =17.76, df=1, P<0.01
Source: NH: Author's survey, 1998; CDS: The influence of Intergeneration Exchange on Nursing Home Admission in Taiwan (Wu et al., 1997).

Table 6-28. Living arrangements in NH and CDS

Living arrangements	NH (%)	CDS (%)
Alone/with other relatives	7(10.8)	1125(14.2)
With spouse only	13(20.0)	1687(21.2)
With children	45(69.2)	5133(64.6)
Total	65(100)	7945(100)

Ps. There were 3 missing data in NH; χ^2 =0.78, df=2, P>0.01
Source: NH: Author's survey; CDS: SSRSC, 1996.

6.3.1.2 Enabling factors

Among the enabling variables, the differences were household income, financial resources ($p<0.01$) and educational levels ($p<0.05$). Because the information about household income of elderly people in the community was unavailable in SSRSC, the household income of elderly patients in nursing homes was compared with Wu's study in 1997. Among the community data (Wu, 1997), only 25% compared to about 53% of the elderly people in nursing homes, had household income over than NT.50,000 (Table 6-29). Similarly, household income indicated by the families of elderly people in nursing homes showed 63.2% of them

had household income over than NT.50,000 (Table 6-34a*). In terms of the financial resources, there were also significant differences between the two groups. The result showed that most (76%) of the elderly people in nursing homes relied on their children for their income, while the rate was 49% for elderly people in the community (Table 6-30). Regarding the educational levels, most of the elderly people had educational levels at primary school and below. However, slightly more elderly people living in nursing homes were educated to a college and over level (9%) than those elderly people living in the community (6%) (Table 6-31).

Table 6-29. Household income of elderly people in NH and CDS

Household income (NT.)	NH (%)	CDS (%)
<=50000	26(47.3)	322(75.4)
>50000	29(52.7)	105(24.6)
Total	55(100)	427(100)

Ps. 1) NT: New Taiwan dollars; 2) There were 13 missing data in NH. χ^2 =19.21, df=1, P<0.01
Source: NH: Author's survey, 1998; CDS: Data source: The influence of Intergeneration Exchange on Nursing Home Admission in Taiwan (Wu et al., 1997).

Table 6-30. Main financial resources of elderly people in NH and CDS

Financial resources	NH (%)	CDS (%)
Children	47(75.8)	3851(48.5)
Other resources	15(24.2)	4094(51.5)
Total	62(100)	7945(100)

Ps. There were 6 missing data in NH.; χ^2 =18.4, df=1, P<0.01
Source: NH: Author's survey; CDS: SSRSC, 1996.

Table 6-31. The educational levels of elderly people in NH and CDS

Educational levels	NH(%)	CDS(%)
Primary school and below	277(78.9)	6257(78.7)
Junior high	21(6.0)	693(8.7)
Senior high	21(6.0)	516(6.5)
College and above	32(9.1)	481(6.1)
Total	351(100)	7947(100)

Ps. There were 27 missing data in NH; χ^2 =8.17, df=2, P<0.05
Source: NH: Author's survey; CDS: SSRSC, 1996.

6.3.1.3 Need factors

As far as need was concerned, the difference was obvious. Nursing home residency dramatically increases with level of dependency. The mean ADL difficulty was 4.1 items and 0.2 items respectively for elderly people in the nursing home and in the community. Less than 5% of those elderly people with no ADL difficulty or dependent resided in nursing homes while more than 90% of the elderly people in community were ADL independent (Table 6-32). In addition, for the sample of nursing home patients, more than 90% of them were dependent in bathing and locomotion, and 85% of them dependent in dressing, while the corresponding situations of elderly people in the community showed that they were much less dependent (Table 6-34a*). As noted above, JUSSR, an index of dependency for nursing home patients, also showed that 70.6% of elderly people in nursing homes were of severe dependence (see Table 6-21c).

Self-rated health has been linked to the incidence of entering a nursing home (Cohen, Tell and Wallack, 1986). Self-rated health in this study, again, indicated the difference between the two groups ($p<0.01$). Nearly 20% of elderly people in nursing homes said that their health was poor/not good, while more than twice the elderly people in the community said that their health was good compared with their counterparts in nursing homes (Table 6-33). Similar results i.e. that those in residential care considered their self-rated health to be poorer than those in the community were found by Burholt (1998).

In addition, institutionalization is associated with having certain diagnostic conditions or problems. In this study, there were dramatic variations across diagnoses in the percentage of elderly patients in nursing homes. Approximately 73% of the elderly patients in nursing homes had a diagnosis of cardiovascular diseases including stroke, hypertension and heart disease. As expected, elderly patients in nursing homes had a higher percentage (33%) of the neurological diseases including Parkinson disease and dementia than elderly people in the community (3%). It was also found that about 17% of the nursing home patients had a diagnosis of skeletal muscular diseases, while less than 4% of them had a diagnosis of gastro-intestinal (GI) diseases (Table 6-34a*).

In Table 6-34b*, the results of the age-adjusted bivariate analysis still showed

that gender, marital status, Activities of Daily Living (ADLs), financial supports and certain diagnoses including cardiovascular disease, neurological disease and skeletal muscular disease had significant differences between elderly people in nursing homes and in community. In addition, college and above educational level also showed the significant difference after controlling for the age effect.

Table 6-32. The ADL of elderly people in NH and CDS

Of items positive in ADL	NH (%)	CDS (%)
0	15(4.0)	7528(94.7)
1	14(3.7)	105(1.3)
2	25(6.6)	56(0.7)
3	29(7.7)	48(0.6)
4	69(18.3)	56(0.7)
5	226(59.8)	154(1.9)
MEAN	*4.1 items*	*0.2 items*

Source: NH: Author's survey; CDS: SSRSC, 1996.

Table 6-33. Self-rated health among elderly people in NH and CDS

Self-rated health	NH (%)	CDS (%)
Good	21(30.9)	324(73.3)
Fair	34(50.0)	91(20.6)
Not good/Poor	13(19.1)	27(6.1)
Total	68(100)	442(100)

χ^2 =49.25, df=2, P<0.01
Source: NH: Author's survey; CDS: Data source: Public attitudes toward long-term care arrangements for the elderly in Taiwan (Wu &Chu, 1996)

6.3.2 Multivariate analysis

The bivariate analysis showed that several of the characteristics inventoried differed for the two groups of elderly people. A more precise identification of the influence of factors on nursing home admission requires a multivariate analysis which controls for other possible confounding factors. In this study, difficulty in feeding, bathing, dressing, continence and locomotion which were strongly related to the positive ADL items; also the household income and ethnicity which were unavailable in SSRSC, 1996, were not included in the model. The financial resources of elderly people in nursing homes which came from their children was found to have significant effect in bivariate analysis. However, because the sample number of this

variable been collected was too small (n=62), it was excluded in the multivariate model.

Table 6-35* presents the results of the multiple logistic regression model. The odds ratio presented here indicates the relative risk of institutionalization associated with a given trait. For a dichotomous variable, the odds ratio represents the extent to which the chance of institutionalization is greater for an elderly person with the trait compared to one without. For a continuous variable, the odds ratio represents the increased risk of institutionalization for each additional unit.

The results showed that advanced age, gender, educational level, per items' positive in ADLs and certain diseases including cardiovascular disease, neurological disease and skeletal muscular disease had significant effects after controlling for possible confounding factors. In terms of the advancing age, the result indicated that the risk of institutionalization increased slightly (OR=1.07, 95% CI= 1.04-1.09) as per year aged. Apart from that, females were more frequently admitted to a nursing home than males (OR=1.8, 95% CI=1.2-2.6). Elderly people with college and above educational levels were more likely to accept and receive nursing home care (OR=2.5, 95% CI=1.3-4.8). Not unexpectedly, the need variable such as the Activity of Daily Living, an index measure of the physical function status, was the most important variable as well and the odds ratio was 2.5 (95% CI=2.4-2.8). That is, the risk for entering nursing home will increase 2.5 times when the elderly people increase per item's difficulty in ADLs. It was also found that elderly people with certain diseases including cardiovascular disease appeared to be 13 times more likely (95% CI=8.1-19.7) to seek nursing home care. In addition, the corresponding risk of receiving nursing home care for elderly people with neurological disease was 21 times higher (95% CI=12-37) and similarly, skeletal muscular disease also increased the likelihood of nursing home entry (OR=4.2, 95% CI=2.4-7.4), while marital status had no more significant effect on nursing home entry in the model.

6.4 DISCUSSION

This study has presented the profile of nursing home patients in Taiwan in company with the comparison of elderly people in nursing homes and those in the

community.

It has shown that, based on Andersen's model, the selected predisposing, enabling and need factors were significantly associated with the likelihood of being institutionalized in a nursing home. Those disabled elderly people who were female, with advanced age, severely impaired who were highly dependent on ADLs and having certain medical diagnoses including cardiovascular disease, neurological disease and skeletal muscular disease were more likely to be admitted to a nursing home. The results are reasonably in line with the findings of other studies as presented in Table 3-1*. Although variables were restricted to the comparable ones from the secondary data of SSRSC, 1996, the comparison of the nursing home patients and elderly people in the community revealed that the impact of various factors on the risk of institutionalization was different from the group of elderly people in the community. Given the high care needs of the nursing home patients, this inevitably appeared to lead to nursing home admission.

In terms of their medical diseases, it was found that elderly people with certain diseases in Taiwan such as stroke, Parkinson disease, dementia and some skeletal muscular diseases were at high risk of seeking nursing home care. In terms of dependency as measured by JUSSR (including mobility, continence, the ability to self care, orientation and social integration) of elderly patients in this study, these diseases were commonly accompanied with high dependency (physically and mentally). These and the need for life supporting measures (such as N-G tube insertion, catheter and trachea insertion etc.) made caring at home difficult. Evidence in the study has also shown that the worse off an elder was with regard to the index of ADL, the more likely he or she was at risk of nursing home entry. This situation, despite their marital status or living arrangement (which are a good indicator of informal care resources), seems to make admission to a nursing home inevitable. In most cases, elderly people or their families have to find a solution themselves after suffering care problems at home, due to chronic diseases. It was also true for the patients coming from hospitals that their disability due to either acute disorders or fairly sudden deterioration of chronic diseases led to a nursing home placement. All of this leads us to the conclusion that in Taiwan, the most important reason for the utilization of nursing homes lies in the need factors, including medical conditions.

Apart from the need factor (if the need factor is controlled), advancing age and gender (female) among the predisposing factors, had significant effects on nursing home placement. This finding, consistent with the findings in previous research in western countries, proved that in Taiwan, older females were the group of elderly people at high risk of entering nursing homes. In terms of the enabling factor (e.g., educational levels, financial means, social support), it was interesting to find that the group of elderly people with college and above educational level was more likely to accept and seeks nursing home care in Taiwan (OR=2.5, 95% CI=1.3-4.8). An explanation could be that better educated people may be more open to the new concept of nursing homes when they need long term care. This hypothesis, beyond the scope of this study, could be further investigated in the future. However, it seems consistent with the findings of Liu et al. (1998) about old Taiwanese, when he mentioned that a more educated person will benefit from higher income, safer occupations, in addition, better housing and greater access to health resources.

A number of limitations must be considered in evaluating these findings. Firstly, this study was based on cross-sectional data and therefore, may not predict institutionalization prospectively as accurately as it classifies it cross-sectionally. In addition, some may argue that it is possible that the characteristics that distinguish aged individuals in nursing homes from those in the community reflect the effects of institutional life on patient characteristics rather than the influence of patient and other characteristics on institutional residency. It may be that those who enter nursing homes---perhaps a heterogeneous group at the time of admission---become a homogeneous group as they systematically adapt to institutional routines and lose whatever level of individuality and independent function they brought with them to the nursing home. Furthermore, a respondent was considered institutionalized regardless of the length of stay in the nursing home. Because their predictors are likely to be different (Jette et al., 1992), future research needs to investigate the risk factors for both types (short and long) of stay.

However, it is noteworthy that the model is consistent---for the most part---with the findings of a number of prospective studies (Branch and Jette, 1982; Evashwick et al., 1984; Shapiro and Tate, 1985; Cohen et al., 1986; Morris et al., 1987, 1988; Roos et al., 1988; Knopman et al., 1988; Jette, 1992; 1995). Through this study of nursing home patients, it is encouraging that the results presented here

will add to the accuracy of predicting who is at risk of institutionalization.

Table 6-2. The prevalence of chronic diseases from which elderly people suffered

	Numbers	Percentage (%)
Cancer	58	1.3
Endocrine or metabolic disease (e.g. DM)	466	10.8
Psychological disease	33	0.8
Neurological disease	163	3.8
Cardiovascular disease	1420	33
Respiratory disease	277	6.4
Gastro-intestinal disease	433	10.1
Urogenital disease	196	4.6
Skeletal muscular disease	698	16.2
Eye and ear disease	372	8.6
Dermatological disease	34	0.8
Hematological disease	37	0.9
Handicap unspecified	106	2.5
Others	9	0.2
TOTAL	4302	100

Source: SSRSC, 1996 (with some further analysis undertaken by the author).

Table 6-3. Percentages of elderly people who had ADL problems among those who said that they did not feel well

ADL items	Having difficulty		ADLs	No. of items	Persons (who did not feel well)		Total
	No.	%			No.	%	%
Feeding	208	49.6	*Had difficulty*	1	105	25.1	
Bathing	323	77.1		2	56	13.4	
Dressing	273	65.2		3	48	11.5	
Toileting	218	52.0		4	56	13.4	
Locomotion	333	79.5		5	154	36.8	
				subtotal	419	100	9.7
			No difficulty		3883		90.3
				Total	4302		100.0

Source: SSRSC, 1996 (with some further analysis undertaken by the author).

Table 6-5. Numbers of visits to clinics and whether the patients had ever been hospitalized in last three months

Visiting clinics				Hospitalization			
No. of times	Female	Male	Total	No. of times	Female	Male	Total
	No.(%)	No.(%)	No.(%)		No.(%)	No.(%)	No.(%)
1	193(5.3)	258(6.0)	451(5.7)	1	136(3.7)	182(4.2)	318(4.0)
2	363(10.0)	411(9.5)	774(9.7)	2	24(0.7)	41(1.0)	65(0.8)
3	549(15.1)	644(14.9)	1193(15.0)	3	8(0.2)	14(0.3)	22(0.3)
4 and over	1751(48.2)	1869(43.3)	3620(45.6)	4 and over	2(0.1)	3(0.1)	5(0.6)
subtotal	2856(78.6)	3182(73.8)	6038(76.0)	subtotal	170(4.7)	240(5.6)	410(5.2)
MEAN	6.67	6.08	6.36 times	MEAN	1.29	1.35	1.32 times
0	777(21.4)	1132(26.2)	1909(24.0)	0	3463(95.3)	4074(94.4)	7537(94.8)
Total	3633	4314	7947	Total	3633	4314	7947
MEAN	4.83 times			MEAN	0.07 times		

Source: SSRSC, 1996 (with some further analysis undertaken by the author).

Table 6-7. What is the priority for the government to do for the welfare of elderly people?

Priority	1*	2*	3*	weighting
Acute health care	32.3	12.8	7.3	43.2
Home care	18.1	16.2	16.9	34.5
Pension	19.6	16.1	10.0	33.6
Long term health care	11.3	18.9	6.6	26.1
Social service for supporting groups	4.7	6.0	12.7	13.0
Elder college and learning center	3.8	6.3	4.8	9.6
In house service	2.3	6.2	8.2	9.2
Improved housing	1.8	4.9	7.9	7.7
Day care	1.5	4.0	4.4	5.6
Vocational training	2.7	2.3	1.3	4.6
Consulting service for elders	0.5	1.5	4.7	3.1
Others	0.8	0.1	0.2	1.0
No answer	0.7	4.5	15.1	8.8

* 1: Major priority; 2: Second priority; 3: Third priority.

Source: SSRSC, 1996 (with some further analysis undertaken by the author).

Table 6-6. Living status of elderly people in Taiwan--- according to their gender and educational levels

LIVING STATUS	Gender			Educational level			
	Female	Male	Total	Primary and under	Junior high	Senior high	College and over
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Living alone	373(10.3)	644(14.9)	1017(12.8)	798(12.8)	106(15.3)	64(12.4)	49(10.2)
Living with spouse only	667(18.4)	1020(23.6)	1687(21.2)	1218(19.5)	168(24.2)	145(28.1)	156(32.4)
Living with spouse & unmarried children	289(8.0)	731(16.9)	1020(12.8)	642(10.3)	141(20.3)	111(21.5)	126(26.2)
Living permanently with offspring	2061(56.7)	1701(39.4)	3762(47.3)	3198(51.1)	252(36.4)	172(33.3)	140(29.1)
Living with offspring in turn	147(4.1)	88(2.0)	235(3.0)	216(3.5)	10(1.4)	5(1.0)	4(0.8)
Living with relatives/friends	59(1.6)	57(1.3)	116(1.5)	98(1.6)	5(0.7)	11(2.1)	2(0.4)
Public institutions	3(0.1)	30(0.7)	33(0.5)	24(0.4)	7(1.0)	2(0.4)	
Private institutions	24(0.7)	14(0.3)	38(0.5)	33(0.5)		4(0.8)	1(0.2)
Others	10(0.3)	27(0.6)	37(0.5)	28(0.5)	4(0.6)	2(0.4)	3(0.6)
System missing		2(0.0)	2(0.0)	2(0.0)			2(0.4)
TOTAL	3633(45.7)	4314(54.3)	7947(100)	6257(78.7)	693(8.7)	516(6.5)	481(6.1)

Source: SSRSC, 1996 (with some further analysis undertaken by the author).

Table 6-9. Knowledge about and utilization of social welfare facilities or benefits by elderly people (%)

	Used			Known			Unknown
	and satisfied	but no comment	and not satisfied	but unable to use	but not willing to use	but do not know how to use	
Health care	30.4	38.0	4.2	2.5	5.7	4.1	15.2
Supplement for transport	28.2	28.0	3.9	15.8	13.6	2.6	7.8
Low income elder pension	17.2	18.1	3.6	38.1	7.6	5.0	10.3
Priority of elders in public place	13.6	27.1	5.7	9.9	14.1	3.4	26.2
Health promotion and examination	12.3	23.3	2.7	2.4	10.0	5.8	43.6
Recreation facility	5.3	20.6	4.0	6.5	22.5	3.6	37.5
Continuing learning center for elderly	2.9	6.8	1.7	7.6	31.3	4.1	45.7
Residential institute	1.2	4.4	1.4	6.6	44.2	6.2	36.0
Day care center	0.8	2.8	1.5	4.4	10.7	5.9	73.9
Home care program	0.5	3.8	1.5	4.6	10.2	7.0	72.4
Nursing home	0.4	2.7	1.4	4.4	9.8	6.3	75.1
Housing for the elderly	0.3	1.6	0.8	5.0	25.3	5.4	61.6
Adult nursery	0.2	1.6	0.8	3.8	14.9	5.4	73.2
In house domiciliary service	0.2	1.7	0.9	4.1	15.4	7.1	70.7

Source: SSRSC, 1996 (with some further analysis undertaken by the author).

Table 6-13. Gender and marital status in different types of home

GENDER		TYPE			
		A No. (%)	B No. (%)	C No. (%)	Total
FEMALE	Marital status				
	Single		1(1%)		1(0.4%)
	Married	28(43%)	27(26%)	26(37%)	81(34%)
	Widow(er)	37(57%)	74(72%)	44(63%)	155(65%)
	Separated & divorced		1(1%)		1(0.4%)
	Total	65(100%)	103(100%)	70(100%)	238(100%)
MALE	Marital status				
	Single	1(2%)	1(2%)	1(3%)	3(2%)
	Married	35(78%)	31(52%)	15(48%	81(60%)
	Widow(er)	9(20%)	27(45%)	13(42%)	49(36%)
	Separated & divorced		1(2%)	2(6%)	3(2%)
	Total	45(100%)	60(100%)	31(100%)	136(100%)

Source: Author's survey, 1998.

Table 6-14. The educational level of elderly patients in nursing homes

	Frequency	Valid Percentage (%)
EDUCATIONAL LEVEL		
Elementary and below	277	79%
Junior high	21	6%
Senior high	21	6%
College and over	32	9%
Total	351	100%
Missing	27	
Total	378	

Source: Author's survey, 1998.

Table 6-15. The educational level of elderly patients in different types of nursing homes

Educational level	TYPE			
	A No. (%)	B No. (%)	C No. (%)	Total
Elementary and below	67(65%)	130(85%)	80(84%)	277(79%)
Junior high	8(8%)	9(6%)	4(4%)	21(6%)
Senior high	7(7%)	7(5%)	7(7%)	21(6%)
College and over	21(21%)	7(5%)	4(4%)	32(9%)
Total	103(100%)	153(100%)	95(100%)	351(100%)

Source: Author's survey, 1998.

Table 6-16a. Former occupations of the elderly patients in nursing homes

Formal occupation	FEMALE No. (%)	MALE No. (%)	Total
Employer/Owner	5(12%)	10(45%)	15(23%)
Employee of private company	--	1(5%)	1(2%)
Government employee	4(10%)	4(18%)	8(13%)
Unpaid family worker	20(48%)	1(5%)	21(33%)
Farmer	6(14%)	--	6(9%)
Labour worker	7(17%)	3(14%)	10(16%)
Soldier	--	3(14%)	3(5%)
TOTAL	42(100%)	22(100%)	64(100%)

Source: Author's survey, 1998.

Table 6-16b. Former occupations of spouses of the elderly patients in nursing homes

Former occupations of spouses	FEMALE No. (%)	MALE No. (%)	Total
Employer/Owner	13(37%)	6(38%)	19(37%)
Employee of private company	1(3%)	--	1(2%)
Government employee	3(9%)	2(13%)	5(10%)
Unpaid family worker	--	8(50%)	8(16%)
Farmer	5(14%)	--	5(10%)
Labour worker	7(20%)	--	7(14%)
Soldier	5(14%)	--	5(10%)
Unknown	1(3%)	--	1(2%)
Total	35(100%)	16(100%)	51(100%)

Source: Author's survey, 1998.

Table 6-17. Source of admission of patients in three types of nursing homes

	TYPE			
SOURCE	A No. (%)	B No. (%)	C No. (%)	Total
Hospital	64(58%)	59(36%)	33(32%)	156(41%)
Own home or that of a relative	39(35%)	86(52%)	53(51%)	178(47%)
Nursing home or residential home	7(6%)	12(7%)	13(13%)	32(8%)
Unknown		8(1%)	4(4%)	12(3%)
Total	110(100%)	165(100%)	103(100%)	378(100%)

Source: Author's survey, 1998.

Table 6-18a. Source of patient's information on admission

	No.	Percentage (%)	Valid Percentage (%)
Formal document (from a previous source, e.g., hospital / nursing home)	98	25.9	28.7
Word of mouth from accompanying person	242	64.0	70.8
Telephone	2	0.5	0.6
Total	342		100
Unknown	36	9.5	
TOTAL	378	100	

Source: Author's survey, 1998.

Table 6-18b. Source of detail about the patient's condition

	No.	Percentage (%)	Valid Percentage (%)
Hospital ward	29	7.7	8.4
District nurse	2	0.5	0.6
Doctor	46	12.2	13.3
Patient's family	267	70.6	77.2
Other nursing home	1	0.3	0.3
Other	1	0.3	0.3
Total	346		100
Unknown	32	8.5	
TOTAL	378	100	

Source: Author's survey, 1998.

Table 6-19. Changes of patients' health status by their length of stay

LENGTH OF STAY	CHANGES		Total
	Improved No. (%)	No change or Deteriorated No. (%)	
Less than 1 month	7(24%)	22(76%)	29(8%)
1 month ≤ 6 months	51(38%)	84(62%)	135(36%)
6 months ≤ 12 months	26(46%)	31(54%)	57(15%)
Subtotal *(less than one year)*	*84(63%)*	*137(57%)*	*221(59%)*
1 year ≤ 2 years	34(38%)	55(62%)	89(24%)
2 years ≤ 3 years	11(26%)	31(74%)	42(11%)
3 years or more	5(22%)	18(78%)	23(6%)
TOTAL	134(36%)	241(64%)	375(100%)

χ^2 =8.23, df=5, P> 0.05
Source: Author's survey, 1998.

Table 6-20a. The ADLs among elderly patients in three types of home

	TYPE			
Items of difficulty	A No. (%)	B No. (%)	C No. (%)	Total
0	4(3.6)	5(3.0)	6(5.8)	15(4.0)
1	4(3.6)	4(2.4)	6(5.8)	14(3.7)
2	7(6.4)	8(4.8)	10(9.7)	25(6.6)
3	4(3.6)	14(8.5)	11(10.7)	29(7.7)
4	14(12.7)	39(23.6)	16(15.5)	69(18.2)
5	77(70.0)	95(57.6)	54(52.4)	226(59.8)
subtotal (3 items or more)	95(86.4%)	148(89.7%)	81(78.6%)	324(85.7%)
Total	110(100.0)	165(100.0)	103(100.0)	378(100.0)

Source: Author's survey, 1998.

Table 6-20b. The ADLs among elderly patients in three types of home

	TYPE			
ADL	A No. (%)	B No. (%)	C No. (%)	Total
0-3 items	19(23%)	31(37%)	33(40%)	83(22%)
4 items or more	91(31%)	134(45%)	70(24%)	295(78%)
Total	110(29%)	165(44%)	103(27%)	378(100%)

χ^2 =0.014, df=2, P<0.05
Source: Author's survey, 1998.

Table 6-21a. Mobility & Continence

Mobility	No.	%
Able to get about alone and unaided	29	7.7
Able to get about alone with an aid	30	7.9
Able to get about with assistance	46	12.2
Bed bound/chair bound	273	72.2
Total	378	100
Continence	**No.**	**%**
Fully continent (or has catheter functioning well)	87	23.0
Incontinent of urine only (or has the problem with catheter)	22	5.8
Incontinent of urine and/or faeces	269	71.2
Total	378	100

Source: Author's survey, 1998.

Table 6-21b. Ability for self care.

	Maximum Assistance	Some Assistance	No Assistance
Bathing	289 (77%)	79 (21%)	10 (3%)
Washing	254 (67%)	78 (21%)	46 (12%)
Dressing	271 (72%)	84 (22%)	23 (6%)
Using toilet	291 (77%)	45 (12%)	42 (11%)
Feeding	198 (52%)	52 (14%)	128 (34%)
(n=378)			

Source: Author's survey, 1998.

Table 6-22a. Source of admission and JUSSR

	JUSSR			
SOURCE	Independent and Low dependent No. (%)	Medium dependent No. (%)	High dependent No. (%)	Total No. (%)
Hospital	11(7.1%)	21(13.5%)	124(79.5%)	156(100%)
Own home or that of a relative	21(11.8%)	48(27.0%)	109(61.2%)	178(100%)
Nursing home or residential home	3(9.4%)	3(9.4%)	26(81.3%)	32(100%)
Total	35(9.6%)	72(19.7%)	259(70.8%)	366(100%)

χ^2 =16.02, df=4, P<0.01

Source: Author's survey, 1998.

Table 6-22b. Source of admission and self care, orientation and social integration in **JUSSR**

SOURCE OF ADMISSION	SELF CARE			Total
	LOW No. (%)	*MEDIUM* No. (%)	*HIGH* No. (%)	
Institutions (Hospital, other homes)	19(10.1%)	17(9.0%)	152(80.9%)	188(51.4%)
Own home or that of a relative	33(18.5%)	32(18.0%)	113(63.5%)	178(48.6%)
TOTAL	52(14.2%)	50(13.4%)	265(72.4%)	366(100%)
χ^2 =13.84, df=2, P<0.01				
	ORIENTATION			Total
Institutions (Hospital, other homes)	24(12.8%)	51(27.1%)	113(60.1%)	188(51.4%)
Own home or that of a relative	40(22.5%)	72(40.4%)	66(37.1%)	178(48.6%)
TOTAL	64(17.5%)	123(33.6%)	179(48.9%)	366(100%)
χ^2 =19.67, df=2, P<0.01				
	SOCIAL INTEGRATION			Total
Institutions (Hospital, other homes)	10(5.3%)	45(23.9%)	133(70.7%)	188(51.4%)
Own home or that of a relative	15(8.4%)	69(38.8%)	94(52.8%)	178(48.6%)
TOTAL	25(6.8%)	114(31.1%)	227(62.0%)	366(100%)
χ^2 =12.49, df=2, P<0.01				

Source: Author's survey, 1998.

Table 6-23. Changes in patients dependency levels

JUSSR	CHANGES			
		Improved No. (%)	No change or deteriorated No. (%)	Total
SELF CARE	*Low*	27(50.9%)	26(49.1%)	53(14.1%)
	Med.	19(37.3%)	32(62.7%)	51(13.5%)
	High	88(32.2%)	185(67.8%)	273(72.4%)
Total		134(35.5%)	243(64.5%)	377(100%)
χ^2 =6.86, df=2, P<0.05				
	CHANGES			Total
		Improved No. (%)	No change or deteriorated No. (%)	
ORIENTATION	*Low*	33(50.0%)	33(50.0%)	66(17.5%)
	Med.	40(32.0%)	85(68.0%)	125(33.2%)
	High	61(32.8%)	125(67.2%)	186(49.3%)
Total		134(35.5%)	243(64.5%)	377(100%)
χ^2 =7.32, df=2, P<0.05				
	CHANGES			Total
		Improved No. (%)	No change or deteriorated No. (%)	
SOCIAL INTEGRATION	*Low*	15(57.7%)	11(42.3%)	26(6.9%)
	Med.	40(34.8%)	75(65.2%)	115(30.5%)
	High	79(33.5%)	157(66.5%)	236(62.6%)
Total		134(35.5%)	243(64.5%)	377(100%)
χ^2 =6.04, df=2, P<0.05				

Source: Author's survey, 1998.

Table 6-34a. Bivariate analysis (including results of Chi-square tests and Odds Ratios, 95% confidence intervals)

Variable	Groups	χ^2 p-value (for original grouping)	NH (%)	CDS (%)	Odds Ratio (95%CI)
PREDISPOSING FACTORS					
Gender					
	Male		138(36.5)	4314(54.3)	0.5 (0.4-0.6)
	Female	0.001	240(63,5)	3633(45.7)	1.0
Age					
	65-74		101(26.7)	5488(69.1)	1.0
	75-84		189(50.0)	2138(26.9)	4.8 (3.8-6.2)
	85+	0.001	88(23.3)	321(4.0)	14.9 (11.0-20.3)
Marital status					
	Single/Divorced/Separated		8(2.1)	526(6.6)	1.0
	Married		162(43.3)	4849(61.0)	2.2 (1.1-4.5)
	Widowed		204(54.5)	2572(32.4)	5.2 (2.6-10.6)
		0.001			
Living status					
	Alone/with other relatives		7(10.8)	1125(14.2)	
	With spouse only		13(20.0)	1687(21.2)	
	With children	0.676	45(69.2)	5133(64.6)	
Ethnicity/race*					
	Mainlander		63(17.2)	33(7.6)	
	Fukienese	0.001.	303(82.8)	403(92.4)	
ENABLING FACTORS					
Educational levels					
	Primary school & below		277(78.9)	6257(78.7)	1.0
	Junior high		21(6.0)	693(8.7)	0.7 (0.4-1.1)
	Senior high		21(6.0)	516(6.5)	0.9 (0.6-1.4)
	College and above		32(9.1)	481(6.1)	1.5 (1.0-2.2)
		0.04			
Financial resources					
	Children		47(75.8)	3851(48.5)	3.3(1.9-6.0)
	Other resources	0.001	15(24.2)	4094(51.5)	1.0
Houseold income*					
	≤50000		26(47.3)	322(75.4)	
	>50000	0.001	29(52.7)	105(24.6)	
Household income of families*					
	≤50000		30(19.3)	322(75.4)	
	>50000		98(63.2)	105(24.6)	
	Don't know	0.001	27(17.4)		

Variable	Groups	χ^2 p-value (for original grouping)	NH (%)	CDS (%)	Odds Ratio (95%CI)
NEED FACTORS					
Difficulty in feeding					
	No		142	7739	1.0
	Yes	0.001	236(62.4)	208(49.6)	61.8 (48.2-79.4)
Difficulty in bathing					
	No		23	7624	1.0
	Yes	0.001	355(93.9)	323(77.1)	364 (236-564)
Difficulty in dressing					
	No		58	7674	1.0
	Yes	0.001	320(84.7)	273(65.2)	155 (114-210)
Difficulty in continence					
	No		74	7729	1.0
	Yes	0.001	304(80.4)	218(52.0)	145 (109-194)
Difficulty in locomotion					
	No		28	7614	1.0
	Yes	0.001	350(92.6)	333(79.5)	286 (192-426)
Of items positive in ADL					
	0		15(4.0)	7528(94.7)	3.2 (3.0-3.5)
	1		14(3.7)	105(1.3)	OR: increasing 3.2
	2		25(6.6)	56(0.7)	times risk when per
	3		29(7.7)	48(0.6)	item's ADL
	4		69(18.3)	56(0.7)	increased
	5	0.01	226(59.8)	154(1.9)	
Anyone positive					
	No		15	7528	1.0
	Yes	0.001	363	419	435 (257-736)
Self rated health#					
	Good		21(30.9)	324(73.3)	
	Fair		34(50.0)	91(20.6)	
	Not good/Poor	0.001	13(19.1)	27(6.1)	
Diagnosis/Problems					
	Cancer		14(1.7)	58(1.3)	
	Endocrine disease		77(9.2)	466(10.8)	
	Neurological disease		131(15.7)	196(4.6)	
	Cardiovascular disease		398(47.8)	1420(33.0)	
	Respiratory disease		34(4.1)	277(6.4)	
	GI disease		14(1.7)	433(10.1)	
	Urogenital disease		43(5.2)	196(4.6)	
	Skeletal muscular disease		65(7.8)	698(16.2)	
	Others	0.01	57(6.8)	558(13.0)	

Variable	Groups	χ^2 p-value (for original grouping)	NH (%)	CDS (%)	Odds Ratio (95%CI)
Cardiovascular disease					
	No		102(27.0)	6527(82.1)	1.0
	Yes	0.001	276(73.0)	1420(17.9)	12.4 (9.8-15.7)
Neurological disease					
	No		253(66.9)	7751(97.5)	1.0
	Yes	0.001	125(33.1)	196(2.5)	19.5 (15.1-25.3)
Skeletal muscular disease					
	No		314(83.3)	7249(91.2)	1.0
	Yes	0.001	63(16.7)	698(8.8)	2.1 (1.6-2.8)
Gastro-intestinal (GI) disease					
	No		363(96.3)	7514(94.6)	1.0
	Yes	0.144	14(3.7)	433(5.4)	0.67 (0.4-1.2)

Ps.

1. Some information on some variables were missing due to subjects refusal to answer or because they could not remember resulting in imprecise summation for some variables.
2. Source of Nursing Home Data (NH): Author's survey, 1998.
3. Source of Community Data Set (CDS): SSRSC, 1996.
4. * Data source of the CDS: The Influence of Intergenerational Exchange on Nursing Home Admission in Taiwan (Wu et al., 1997).
5. # Data source of the CDS: Public Attitudes toward Long-Term Care Arrangements for the Elderly in Taiwan (Wu & Chu, 1996).

Table 6-34b. Age-adjusted bivariate analysis (including results of Odds Ratios and 95% confidence intervals)

Variable	Groups	Age-adjusted Odds Ratio (95% CI)	Notes
Gender			
	Male	**0.6 (0.5-0.7)**	
	Female	1.0	
Marital status			
	Single, Divorced, Separated	1.0	
	Married	**2.3 (1.1-4.8)**	
	Widowed	**2.6 (1.3-5.4)**	
Educational levels			
	Primary school and below	1.0	
	Junior high	1.0 (0.7-1.7)	
	Senior high	1.3 (0.8-2.0)	
	College and above	**1.7 (1.3-2.8)**	
Difficulty in feeding			
	No	1.0	
	Yes	**42 (32.5-54.6)**	
Difficulty in bathing			
	No	1.0	
	Yes	**270 (174-421)**	
Difficulty in dressing			
	No	1.0	
	Yes	**110 (81-151)**	
Difficulty in continence			
	No	1.0	
	Yes	**102 (76-137)**	
Difficulty in locomotion			
	No	1.0	
	Yes	**212 (141-319)**	
Of items positive in ADL		**3.0 (2.8-3.3)**	OR: increasing 3 times risk when per item ADL increased
Anyone positive of ADL			
	No	1.0	
	Yes	**328 (192-558)**	

Variable	Groups	Age-adjusted Odds Ratio (95%CI)	Notes
Financial support			
	children	**2.23 (1.23-4.05)**	
	non-children	1.0	
Cardiovascular disease			
	No	**1.0**	
	Yes	**11.4 (9.0-14.6)**	
Neurological disease			
	No	**1.0**	
	Yes	**15.8 (12.0-21.0)**	
Skeletal muscular disease			
	No	1.0	
	Yes	**1.7 (1.3-2.3)**	
Gastro-intestinal (GI) disease			
	No	1.0	
	Yes	0.7 (0.4-1.2)	

Table 6-35. Multiple Logistic Regression Analysis

Variable	Groups	Model	
		Odds ratio	**P value**
Age	continuous	**1.07 (1.04-1.09)**	**0.00001**
Gender			
	Male	1.0	
	Female	**1.8 (1.2-2.6)**	**0.0016**
Marital Status			
	Married		
	Single/Divorced/Separated		
	Widowed		N.S.
Educational levels			
	High school and below	1.0	
	College and above	**2.5 (1.3-4.8)**	**0.0079**
# Of items positive in ADL	continuous	**2.5 (2.4-2.8)**	**0.00001**
Cardiovascular disease			
	No	1.0	
	Yes	**12.6 (8.1-19.7)**	**0.00001**
Neurological disease			
	No	1.0	
	Yes	**21.0 (12-37)**	**0.00001**
Skeletal muscular			
	No	1.0	
	Yes	**4.2 (2.4-7.4)**	**0.00001**

Ps.

1. N.S.: No Significance.
2. The model explained 98% of the amount of variation in the response.

CHAPTER 7

THE JOURNEY INTO NURSING HOME CARE

Although a system of long-term care has been launched in Taiwan, most of the responsibility for people with chronic illness and functional limitations is still borne by individuals and their families.

In western countries, especially those with a long-term care assessment system, long-term care decisions can be an enormously complex process, because they involve a series of medical, social and personal decisions, made over time by multiple decision makers. In Taiwan, the idea of health assessment in a long term care system was discussed by the government in 1998 and a related project on a trial basis was planned and launched in one health authority in the Capital. However, long-term care decisions such as entry to a nursing home is mainly a family issue and is made by elderly individuals and/or their families. This is because, currently, the fees are paid by the consumers themselves.

In this chapter, findings are presented regarding the journey into nursing home care and the decision making process among the sample of elderly people in nursing homes and their families (see chapter 4). Long-term care decision making involves elderly people, their families and professionals. These decisions are concerned with at the least a) where an older person with long-term care needs should live---for example, continue to live in his or her home or move to an institution, b) what sort of care the elder needs and ought to have, c) who should provide this long-term care. As Kane, R. (1995) emphasized "the elusive nature of long-term care decisions" in her research, she emphasized "that decisions are rarely solo or clean-cut; that they are made in social context, influenced by many people and by previous decisions; and that subtle differences in the way issues are framed and problems cast will influence the decision taken." (pp. 105).

No matter which type of nursing home care (see chapter 6), this research found that relatives usually helped elderly people with their decision to enter and the

choice of a nursing home. In this chapter, evidence is presented about admission to the nursing homes. This comes from the interviews with elderly patients or their families.

In the decision making process, the various factors and how they interact to influence the final decision have attracted the attention of researchers in recent years. In addition, the conceptual and ethical dimensions of Taiwanese family tradition, such as 'raising sons is an insurance for old age', are inconsistent with institutional care and this makes the decisions harder and ethically problematic.

This analysis of the views of elderly people and their families is added to the evidence about the risk of institutionalization in order to explore not only their socio-demographic and need characteristics (see chapter 6) but also their views toward nursing home entry (this chapter). This chapter traces the nursing home admission process of elderly people. It includes the reasons for admission, their routes into care, source and nature of entry and the role of family members. Although the variables were hard to define due to the elusive nature of long-term care decisions, two different view points were used to look at the journey into nursing home care and the process of decision making---those of the elderly people and of their families who were involved in the process of admission.

Quantitative data presented includes open-ended questions in the decision making process which was gathered both from elderly patients and their families. The design of the research did not include a comparison of these views although with hindsight this might have been interesting.

7.1 PRIOR TO ADMISSION

7.1.1 Living arrangements

The living arrangements prior to admission of elderly people in nursing homes are shown in Table 7-1. These are based on the interviews with these elderly patients who were lucid in the nursing homes. This shows that 63% of the elderly patients lived with their children prior to entering the nursing home, another 21% lived with their spouses, while 12% lived alone. Just over 4% of the elderly respondents lived in other institutions prior to admission. That is, the majority of elderly people faced a

move from the community to an institutional setting and a transition from living in their own homes to a totally strange environment. For most of the old Taiwanese people, this move is seen as a last resort. For example, evidence from the study by Wu et al. (1994), showed that only about one/fifth (21.5%) of elderly people in the community were willing to enter a nursing home. Most of them would not make this choice unless they were forced to. For many people leaving a familiar environment and adapting to a new setting brings with it psychological feelings of loss, separation and abandonment (Phillips, J., 1992). This is why most moves are involuntary. These factors in their transition to a nursing home also influence their post-admission adjustment and well-being (Reinardy, J., 1992; Phillips, J., 1992).

Table 7-1. Living arrangements of the elderly patients prior to admission to a nursing home

LIVING ARRANGEMENTS	NO.	(%)
Living alone	8	11.8
Living with spouse only	14	20.6
Living with children	43	63.2
Living with relatives	0	0
Living in other institutions	3	4.4
Total	68	100.0

Source: Author's survey, 1998.

7.1.2 Household composition

Only a few people remain single in the contemporary over-65 cohorts in Taiwan (4.8%). In this study of elderly people in nursing homes, only 1.1% of them remained single (never married). Most of them (97%) had children. This study showed that the elderly patients in the nursing homes had 4.6 children on average and most of them (63%) had lived in a three-generation household in the community with their spouse and children. In terms of family size, therefore, before entry to the nursing home:

- 66% (37 people) of the elderly patients lived in a 4 or more person household;
- 9% (5 people) lived in a 3 person household;

- 25% (15 people) lived in a 2 person household.

7.1.3 Events

Despite the fact that the elderly people and their families acknowledged the likelihood that advanced age would bring increasing frailty to elderly people, few of them seriously considered the need for formal care in the future. Studies of the process of family decision making about nursing home placements suggest that the decision to institutionalize family members is a difficult one and often triggered by crisis (Gordon, 1985; Townsend, 1987; Cohen et al., 1993; Dellasega & Mastrian, 1995; Bell, 1996). The context of crisis or an event related to the elder's illness and hospitalization often made the decision about long term care placement inevitable. For some, the additional pressure from the hospital to act quickly further contributed to a rush to make a decision. A time of tremendous "turmoil" in the actual process of placements was described by the family members in Rodgers's (1997) study and also reported in the study of Dellasega & Mastrian (1995).

According to the responding families in this study, 44% of the elderly patients moved to the nursing home because of a sudden stroke, over 15% of them came in because of falls, 8% because of hypertension and 7% because of fracture. Increasing frailty (nearly 10%) was also very important in triggering entry. Other important reasons were getting lost, bereavement, extreme pain (such as arthritis) and car accidents. Table 7-2 gives the details of events that triggered elderly patients themselves or their families to search for nursing home care for their elderly relatives. These findings are consistent with the findings in the previous chapter where it was found that events or crises caused by certain diseases such as cardiovascular diseases, neurological diseases and increasing frailty because of ageing were likely to trigger entry into a nursing home.

Table 7-2. Events/Crises mentioned by responding families that triggered the nursing home entry.

EVENTS	NO.	(%)
Stroke	68	43.6
Fall	24	15.4
Increasing frailty	15	9.6
Hypertension	12	7.7
Fracture	11	7.1
Getting lost	9	5.8
Car accident	4	2.6
Bereavement	4	2.6
Extreme pain from some disease such as arthritis	4	2.6
Others (e.g. cancer, tumor)	5	3.2
Total	156	100.0

Ps. There are 6 missing data in this category.
Source: Author's survey, 1998.

In the interviews, the elderly patients stated that their families arranged the place for them because of their bad health (such as stroke, falls and fractures) which made them immobile or so disabled that they could not stay in their own home. Few of them made a real choice or took part in the decision making process but followed the arrangements made by their families. Although they often burst into tears when they were asked about this placement, most of them saw the nursing home entry as their destiny. 'Once you come here, you have to find ways to adapt to it.' is a traditional way for Chinese people to view their life. This is what most of the elderly people in the nursing homes did.

Conversely, the responding families of elderly patients in nursing homes generally expressed a more realistic view about the need for nursing home care. They emphasized that crises and difficult events made caring at home more difficult and burdensome. They would not have sent their elderly relatives into the nursing home if there had not been these pressures.

7.1.4 Planned/unplanned entry

Wilson (1997) has emphasized how the planned and unplanned entry influenced the subsequent phase of acceptance and adjustment of the elderly people in the nursing home. In this study, sixty percent of the responding families indicated

that the entry to the nursing home was planned in advance either when the elder relative was in hospital or in their own home. The time when they considered other care alternatives than care in the family home was often when the carers experienced additional difficulties in caring or when the elder relative further deteriorated after hospitalization. The same question was asked of lucid elderly patients in the nursing homes. Nearly four in five (78%) indicated that this entry was planned. The possible reason for the high proportion saying entry was planned was that for these lucid patients, families spent more time explaining why nursing home entry was necessary. Therefore, these elderly patients, in general, understood the difficulties of their families and reckoned that entry, although unwillingly suggested by their families, was the only real option. However, it was found that more than 40% of the patients in the nursing homes in the sample came from hospitals and nearly 27% of them needed no care at all before entering the nursing home. This situation made their decision making process more difficult due to the failure to plan in advance. The decision makers not only had to make a decision that affected their elder relatives' welfare but had to do it from the context of a crisis. The crisis context of placement has been referred to previously by Chenitz (1983) and Dellasega & Mastrian (1995) and elaborated above.

7.2 REASON FOR ADMISSION

7.2 1 How and Why

According to Bell (1996), variables that affect why the families decided to place their frail elderly relatives in a nursing home included whether the placement was permanent or temporary; whether it occurred from home or resulted as a transfer from hospitals and whether the elderly patients were involved in the decision or not. The dilemma of the family in making the decision to admit their frail elderly relative was described by Johnson et al. (1992).

Elderly patients and their families interviewed in this study experienced a variety of circumstances and events leaving them vulnerable to entry into nursing home care. In this study, elderly patients aged 65 and over in registered nursing homes and their family members were asked to state the most important reasons for

their applying for entry to a nursing home apart from the crises /events mentioned above. As seen in Table 7-3*, the most frequently mentioned reason by elderly patients was " This entry was arranged by my family.". This reason was given by 76% of interviewed patients (51 people). It seems that the elderly patients were little involved in the decision making process. The second most frequent reason mentioned by elderly patients was "no one is available to care me at home.". This answer was given by 54% of the interviewed patients (36 persons). Next in order were several reasons involving problems in the family such as "the excessive burden on family members" (18%), "my family were also ill" (9%). Other reasons included: suggested by a doctor, patient's own willingness to enter the nursing home and inability to obtain or retain adequate hired help. In short, most (85%) of the responding elderly patients said that the nursing home entry was arranged by families, 12% of them indicated this entry was decided by themselves and only 3% named professionals.

The reasons for admission given by the 162 responding families were somewhat different in emphasis from the forgoing. The most popular reason given by families of the patients in nursing homes was "no one is available to care at home". This was given by 57% of interviewed family members (92 people). 44% of them (72 people) mentioned "the excessive burden on family members" if the patients stayed at home (Table 7-4*). This caring burden was far more frequently mentioned by families than that (given for only 18%) mentioned by the responding patients. Other fairly frequent reasons mentioned by families were new special health problems (34.0%), increasing frailty (29.6%), gradual deterioration (23.5%) and planned in advance because of the patients' needs (26.5%).

When the survey was conducted, there were about 8% of the elderly patients who had been admitted less than one month ago. Temporary admissions were also mentioned by some elderly patients and responding families. They regarded this admission as of benefit for a variety of reasons. These included rehabilitation or convalescence; to overcome a specific problem; to see if the old person can adapt to the situation; respite care for the carer; or as a temporary placement until an alternative was settled. There were also some elders who had been moved several times between hospitals and nursing homes because of their changing health conditions. The readmission rate was 1.5 times on average (the maximum was six

times). This may be an under-estimation because patients who had situations like this were often regarded as new patients by some nursing homes unless they kept the bed during hospitalization. It was also found that there were several elders who believed their stay to be temporary while the family believed the stay would be permanent. In these cases, families said that knowing the truth that their stay was permanent was too harmful for patients. The only way to comfort their elders was to say that they would go home when they got better.

In the interviews, it was found that the majority of elderly people entered the nursing homes with multiple background factors. A combination of physical deterioration and the families' inability to care was most frequent.

Pushed out of the acute care system and lacking information about long term care made placement decisions by families highly emotional and stressful events. They felt even more frustration and stress than the elderly patients themselves. This was for a number of reasons. First, most of the elderly people in nursing homes were seriously ill when admitted and more than 65% were confused sometimes or all the time. In addition to their passive attitude and lack of information about nursing home care, it was found that most of them knew little about their situation and why they were in the nursing home. Second, traditionally, elderly people relied very much on their children. They regarded the filial responsibility of their children as natural and they counted on them completely. The exception was some lucid elderly patients who were single or without any children. They relied exclusively on themselves and had given more consideration about their future arrangements before the nursing home entry was decided. They may not have entered willingly but at least, it had been a personal decision.

7.2.2 Eight typical cases

To complement these facts about reasons for admission to nursing homes, some typical examples will be given. Eight illustrations (the names have been changed to preserve anonymity) are described below.

CASE 1: Mr. Wang and his wife had no children. After a sudden stroke when he was 79 years old, Mr. Wang became chair-bound. Mrs. Wang had to take care of her husband but as she was two years older she felt too old to be a carer. They felt

rehabilitation activities in a nursing home was necessary for Mr. Wang. They decided to move him into a public hospital-based nursing home which was near their own home. Mrs. Wang spent most of the time in the nursing home with her husband, she ate in the nursing home as well and even slept in a foldaway bed in her husband's room. Sometimes she went back home to cook a special meal which her husband liked very much and to prepare some new clothes. She always visited daily. She said " If I did not come back quickly, he (Mr. Wang) does not sleep well that night.". Since they lived in a single room in the home, the matron understood their situation and agreed that Mrs. Wang could stay overnight.

CASE 2: Mr. Hsai (aged 83) was institutionalized straight after his wife's death. His eldest son, a head teacher, recalled that "My father and mother lived together in our old country-house. My father had fallen six years ago and had bad health since then. He was chair bound and sometimes felt confused. My mother then took care of him, including feeding, bathing him and gave him almost all his personal care.". "We could not imagine that my mother, who was always healthier than father, would had passed away first due to a sudden stroke.", "My brother and two sisters all have to work, besides, we do not want my father to see the process of bereavement at home. No one could take care of him at that time, therefore, we decided to move him into a nursing home, a place which can provide better care, and we visit him daily in turn, also bring his favorite fruit for him.". "He looks OK, only sometimes he still asks why my mother does not come".

CASE 3: Mr. Hsui was a lucid patient but was totally bed bound because of a car accident. He was 69 years old when interviewed and complained that he had bad luck. He and his wife had two sons and one daughter and several grandchildren but he said he could not enjoy family life any more. He thought he would not recover and no one could possibly bear the caring task for good. His wife came to visit him daily but said that she could not take care of him at their own home because he was totally bed bound and was too heavy to be moved when he needed a bath. Mr. Hsui disliked his roomate because he always put his radio on no matter if Mr. Hsui was sleeping or not. However, Mr. Hsui said he did not report it to nurse because "the nurses always felt that I was a trouble maker because I could not move, I need someone to help me to drink, to eat and everything. I do not want to make further

trouble, otherwise, they will lose their patience with me.". Mr. Hsui felt unhappy living there but had no other place to go.

CASE 4: Mr. Lai (77 years old) was chair bound and confused all the time. He had three life supporting tubes including N-G tube, Foley catheter and Trachea on him to keep him alive. Mrs. Lai came to feed her husband every night after leaving work. She said "I feel it is better to feed him myself. One reason is that I can help with this task and the other is that I feel I can do it slower and better than the care assistant did because they have to feed more than one patient, they often do it quickly.". Mrs. Lai felt it was very difficult to care her husband at their own home because no one was available to offer all the personal care and watch him 24 hours a day. Besides, "He was too vulnerable to stay at home. I am afraid that I could not handle any sudden changes in him, so I chose this private hospital-based nursing home because there are doctors and nurses available here just in case he needs any help. I think he is safer here.".

CASE 5: Mrs. Wu, 85 years old and blind, was a widow and taken care of by her eldest daughter-in-law who was aged 59 (and also a widow) before entry to the nursing home. Mrs. Wu had three sons and daughter-in-laws who all participated in the work force. She had lived in her eldest son's family since her husband died and even after her eldest son had died three years ago. Mrs. Wu needed someone to cook for her, feed her and help her with bathing and her frailty had gradually increased. Her eldest daughter-in-law worked every day and could only help her between her work breaks. She (daughter-in-law) felt that it was too cruel to leave an old blind woman all day at home and feared that if anything happened to her such as a sudden illness or fall, then no one was available to help her immediately. She had thought about hiring a helper, but it was too expensive (about NT.60,000) to afford a native one. She did not want to use a foreign helper because of communication problems. After consulting with Mrs. Wu's other sons, they decided to institutionalize her and pay the fee cooperatively.

CASE 6: Mrs. Lin, 89 years old, was a widow and lived with her youngest son before entry. Her youngest daughter-in-law took care of her daily needs. This daughter-in-law complained that because her husband was handicapped since childhood and his parents had helped them more than his brothers. They were now

expected to give more help in return. The two other brothers thought that taking care of parents should be the responsibility of the youngest handicapped son. The original idea of sharing caregiving tasks was that each daughter-in-law should take care of Mrs. Lin one month in turn. However, the other two sons thought that the youngest son inherited more assets from the parents, so they should be in charge of all the caregiving without sharing the responsibility. In this situation, Mrs. Lin's youngest daughter-in-law felt exhausted and asked her husband for help. Finally, they gave up this care at home and decided to send Mrs. Lin into a nursing home instead of remaining in a situation which caused tensions between families.

CASE 7: Mrs. Cheng, 71 years old, had been bed-bound for two years before entering the nursing home. "We had tried many ways to keep her out of the nursing home. We had cared for her in turn and ever hired a 24 hour care assistant for her till the stress on the family became so burdensome and the quality of the care was a matter of concern as families realized that good care could not be provided at home.". Mrs. Cheng's daughter-in-law said, " My mother-in-law (Mrs. Cheng) has two sons, we consulted each other everytime before we hired a new helper. However, we found that the helper could not offer her good care and we suspected that she abused her sometimes when we were not at home.".

CASE 8: Mrs. Kao, 38 years old, daughter-in-law of a 71 year-old man who was chair-bound and sometimes confused due to Parkinson disease , gave up the carer's role at home after 18 months. She asked for help from the other family members to send her father-in-law to a nursing home. She explained why she made this decision. She complained that the caring task was burdensome and endless. "Being tied up and feeling no freedom made me feel distressed. I did not reckon that he could get better any more and I could not bear to be a carer for ever.", "Admitting him to a nursing home was an alternative. I find many residents here with similar dependency. We can come every day, bring him the food which he prefers and the care provided here is even better than mine.".

7.2.3 The most influential person

Table 7-5a shows "who is the most influential person in the nursing home decision" based on interviews with the sample of 68 lucid elderly patients in nursing

homes. The people who were most likely to be very influential were:

- the patient's children (82%),
- the patients themselves (9%),
- spouse of the patients (4%),
- other family-members (i.e., not spouse or adult children) (3%).

It should be noted that only 9% of the patients themselves played a very influential role in the decision, more male than female patients decided on nursing home entry themselves and the adult children of the nursing home patients were more influential when the patients were female (though this was not statistically significant). Most of the influential persons mentioned by elderly patients were their family members, especially their children. Professionals such as doctors, nurses or social workers were seldom involved actively in the decision-making process.

The same question was also asked of the families of these elderly patients. The results were: (Table 7-5b)

- the most influential people: adult children of the patients (82%),
- the spouse of the patients (10%),
- the patients themselves (4%).

The finding is consistent with the views of the elderly people, i.e., that the decision is a family one. Adult children were the most influential persons who were involved in the decision to enter the nursing home. Before making the decision about nursing home entry, almost all of them (94%) talked to someone about this issue. Among them, most people (87%) talked to their families and relatives (5%), while some (8%) asked professionals for help. More than half (53%) of the responding families said that they had not talked to their frail elder relatives about this entry before making the decision. Particularly for those patients who could not exercise choice because they were too frail or confused, their spouse and adult children were the most likely people to make the decision. The families believed that mainly children of the frail elder person and other involved family had input in the decision. They felt stressed and inexperienced when making the decision and also felt that they had inadequate information.

In summary, elderly patients and their families have similar views about "who is the most influential" in the decision making process. The adult children were the most influential ones. On closer examination, it was also found that the lucid patients

regarded themselves as being involved more and having more influence (9%) when compared that with the families' views (4%), especially among the men respondents (17%). This may explain that almost half of the elderly patients in nursing homes were too frail to express their opinions but among the group of patients who were lucid, they had a more active say toward this entry (Table 7-5a, 7-5b).

Table 7-5a. Elderly patients' responses to "the most influential person" in the nursing home decision

The most influential person	FEMALE (%)	MALE (%)	TOTAL	%
Children* of the patients	39(86.7)	17(73.9)	56	82.3
Patients themselves	2(4.4)	4(17.4)	6	8.8
Spouse of the patients	2(4.4)	1(4.3)	3	4.4
Other family members	1(2.2)	1(4.3)	2	2.9
The professionals	1(2.2)	0(0.0)	1	1.5
Total	45	23	68	100

Ps. Children of patients included sons/daughters-in-law.
Source: Author's survey, 1998.

Table 7-5b. Families' responses to "the most influential person" in the nursing home decision

The most influential person	NO.	%
Children* of the patients	132	81.5
Patients themselves	6	3.7
Spouse of the patients	16	9.9
Other family members	2	1.2
The professionals	5	3.1
Friends	1	0.6
Total	162	100.0

* Children of patients included sons/daughters-in-law.
Source: Author's survey, 1998.

7.2.4 Institutions applied to, and the basis of selection

As mentioned above, most (85%) of the elderly patients said that this nursing home entry was decided by their families, 12% of them mentioned that they thought they needed this kind of institutional services, while only 3% of them indicated that this entry was suggested by the professionals.

According to the interviews with the responding families, an application for entry to a long-term care institution was *first* asked for by 56.8% of elderly patients' families, another 41.4% of the responding families said the entry was suggested by others, while only 1.9% requests came from elderly patients themselves.

The majority of families asked for help from their children, relatives and friends. There were also 26% of the families who asked for help from professionals. If the nursing home entry was first suggested by others, the families were asked "Who suggested the nursing home to you?". The most frequent answers were that the nursing home admission was first suggested by professionals (47%), relatives and friends (29%) and their children (15%), while only 5% of the responding families suggested the spouse of the elderly person and 4% of them were suggested by the care assistants in hospitals (Table 7-6*). On closer examination, it was also found that more families whose elder relative came from hospitals had the moves suggested by professionals (58%) compared with those who came from their own homes (31%). This may be explained because professionals found it easier to contact the nursing home. This also seems consistent with the findings in some previous research that receipt of formal services leads to a higher probability to utilize institutional services subsequently (McCoy and Edwards, 1981; Jette et al., 1995). In general, it can be seen that the information about long term care was very limited. Most of the families got information by different routes such as from relative/friends and by asking any other possible source of information.

According to the responding families, most (86%) of the nursing home entry was also arranged by patients' adult children and 9% was arranged by the spouses of the patients, while the other 5% was arranged by either the professionals or relatives/friends. When asked how they selected this nursing home, most (79%) of the responding families said that the level of services including a cleaner environment (mentioned by 30% of them), better care provided (23.5%), and hospital-based nursing home (21.6%), were the most important criteria. Other reasons included the geographical distance (44%) and recommended by relatives or friends (20%). Surprisingly, the cost of the care was only considered by 3% of the responding families (Table 7-7). This may be explained by the phenomenon that sharing the nursing home payments between families was common in Taiwan society (described in 7.6.2).

The lack of choice in placements also affected the decision about where to place the elderly person. Nearly 10% of the responding families indicated that there was only one nursing home within a reasonable distance to the family or they did not know where else to apply (Table 7-7). Whether the home was registered was not an issue by most of them and some families did not even know whether the home which they had chosen was registered or not. Most of them made the choice after visiting the home and some visited several homes and made the comparison before taking the decision. It is interesting that the choice of the nursing home was made because it was hospital-based was mentioned by nearly 22% of the responding families (Table 7-7). It seemed to them that the hospital-based homes meant better care and services, they felt safer in placing their frail elderly relatives there and trusted this type of home more because of the back up of the medical staff in the hospital. This indicates that in Taiwan, most elderly people and their families still regard the nursing home as part of the medical care system. They often told their elderly relatives that they had to stay in 'this hospital' because of their illness. As a result, they requested more medical attention for their frail relatives apart from focusing on their daily living. In the interviews, it was also found that neither the families nor the elderly patients could distinguish well between a nursing home and a residential home. The view is clear that if the patient is ill, s/he will be better off in a hospital-based home.

Table 7-7. The reasons why this particular nursing home was chosen by 162 responding families

Reasons	Frequencies	Percentages (%)
Better services	128	79.0%
cleaner environment	48	29.6%
good care /staff	38	23.5%
hospital-based nursing home	35	21.6%
relative working here	7	4.3%
Location (geographic reason)	72	44.4%
Introduced by relatives/friends	32	19.8%
Suggested by the professionals	28	17.4%
Only knew this one or no other place to which to apply	15	9.3%
Had friends living in this home	6	3.7%
Cost /fee of the home	5	3.1%

Ps. Total of column exceeds 100 percent because many respondents gave more than one reason.
Source: Author's survey, 1998.

7.3 THE DECISION MAKING PROCESS

Decision-making is conceptualized as an enormously complex process because it involves a series of medical, social and personal decisions and also involves various kinds of people (McCullough and Wilson, 1995). In the case of long-term care, it involves the frail elderly people themselves, the professionals and most important, family members (McCullough and Wilson, 1995). The majority of elderly people in this study appeared to need nursing home care. Many of the patients in the nursing homes were physically frail or chair/bed bound and were supported by families and professionals who were anxious about their ability to live independently. Because of this anxiety, pressure had been directed at elderly people and their families to apply for nursing home care. Key questions which arise are, 'Was nursing home care inevitable?", "Were there any other care alternatives?", "Were the elderly individuals who had to live with the result of the decision, involving in the decision making process?", "Was there any involvement by the elderly people regarding choice, discussion or control about nursing home entry?", "How did the families' role influence the decision?". This study has tried to explore these questions in the decision making process of elderly people and their families in Taiwan. They are now discussed in turn.

7.3.1 Was nursing home care inevitable?

Both elderly people and their families were asked "Were there any other options you could have taken other than coming here?". Following this, questions were asked about "Why was this option not followed as an alternative to nursing home care?" or "Why did you think there was no options/alternatives at all?". These questions were asked in order to explore in detail the process of decision making.

Nearly two/third (44 people) of the responding elderly patients said that nothing else was suggested apart from the nursing home they were in. Among those few (22% of the responding elderly patients) answering "Yes, there were some other suggestions.", the only options which they knew about were hired-helpers and residential care. Hired-helper was the most frequent option mentioned by 89% (16 of 18) responding elderly patients who said "Yes, there were some other ways of

keeping me staying at home". When the question " Why wasn't this care/service arranged for you?" was asked, reasons included that it was too expensive; the family rejected this idea; it is not easy to find and keep a good helper and concern about the quality of care given by the hired-helper (Table 7-8*).

The families of elderly patients in nursing homes were asked the same questions about "Was there any other option suggested?", "Were there any other options/alternatives you could have taken for the patient other than nursing home admission?" and "Why wasn't this extra help/service arranged?". Among 158 responding families answering the first question, 56% (88 people) said "Yes, there were some other options suggested.", 42% (66 people) said "No other option was suggested." and 3% (4 people) said "Don't know". For those answered yes, again, a hired-helper was the most popular suggestion mentioned by 75 people (85%), 4 people (4.5%) mentioned residential care, 3 people (3.4%) mentioned day care centre and 5 people said "care by families" (6%).

When the families were asked the second question about the possibility of other alternatives that they could have taken other than nursing home entry, 69 people (43%) said "Yes" (Table 7-9a*). Among them, 83% (57 of 69) said the patient could be cared for by the hired-helper at home, 9% (6) said the patient could be cared for by families if someone was available and the rest mentioned some form of community care such as a day care centre or home care program. These results indicate that 69 out of 159 responding families felt that some other alternatives would have been possible if long-term community care was more comprehensive. They stressed the enormous pressure they went through when making this choice but had to compromise in the end. Table 7-9b* shows the answers to the third question about 'why the extra help/service was not arranged' by the 65 responding families. The most frequent reasons were 'could not find and keep a good helper', 'family did not like this idea of a stranger staying in the home' and 'quality of care concerned' and 'too expensive'. This shows that the possible alternatives had been finally eliminated due to service quality, non-availability and financial problems (e.g. It was not easy to find a good helper and sometimes it was more expensive than entering a nursing home).

The reasons offered by those 82 families who answered "No, there was no other option." are given in Table 7-10*. Only 68 people gave reasons. The main one

was 'because the patient was too frail to keep him/her at home', 'did not know how to care for the patient in their own home' and 'do not trust the hired-helper' in that order.

It was also relevant to find out whether the patients' or carers' conditions/factors influenced the families' opinion about any alternative existing or not when the decision was made. Bivariate analysis (Table 7-11*) shows that in terms of "any alternative for the patient's placement", patients' dependency level (including JUSSR, mental state and tube insertion) and carers' perceptions were the two main factors which influenced the families' opinions about other possible alternatives for the patient ($p<0.05$). That is, the higher patients' dependency level (especially their orientation and social integration), the less the families reckoned that any other alternative was possible. Table 7-12* shows the multivariate analysis where the factors influencing the families' point of view about any other alternative for their elder relatives are examined more closely. Variables which entered into the analysis were those previously noted as being associated with families' decisions and variables that had a significant effect shown in the bivariate results.

Two models were presented in the multivariate analysis. Model A included all responding families who answered question 14 (about any other alternative for the patient than entering the nursing home). The result shows the tube insertions, the family's perceptions (i.e., their ideal preference toward long-term care) and the number of children of the elderly patients have a statistically significant influence among families' view towards the placement. That is, when the patients needed tube insertions (OR= 0.23, 95% CI= 0.10-0.57) and when the families were more likely to prefer institutional care (OR=0.21, 95% CI=0.08-0.57), their families reckoned there were less possibilities for alternatives. When the elderly patients had more children, the families reckoned that more possibilities for alternatives existed (OR= 2.61, 95% CI=1.08-6.36). In model B which focused on the responding carers only, three variables showed significant differences in the result. Again, the more life sustaining tube insertions the patients needed the less the possibility of alternatives existed (OR=0.13, 95% CI=0.04-0.48). The carers' preference toward nursing home care influenced their views toward other alternatives. The likelihood of alternatives being an option was 0.1 times for the group of carers who preferred nursing home care (OR=0.10, 95% CI=0.03-0.42). In addition, family income became more important

than in the bivariate analysis. It was shown that family income influenced their view toward other alternatives, though it was set on the boundary of statistical significance. That is, the group of carers whose family income beyond NT. 50,000 per month reckoned that other alternatives were more possible than their counterparts whose family income below NT. 50,000 (OR= 4.90, 95% CI=0.94-25.44).

These findings are reasonably consistent with the facts that nursing home care is most needed by high dependent elderly people; the more children the frail elderly people have means a likelihood of more support in family networks (Freedman, 1993; 1996; Litwak and Longino, 1987; Doty, 1986; Holden et al., 1997); and elderly people's preferences (Salvage, 1995; Baldock, 1997), family's/carer's preferred patterns of caregiving (Grunfeld et al., 1997; Baldock, 1997) and their competing role demands may also influence their views toward nursing home placement (Kraus et al., 1976b; Stone, Cafferata and Sangl, 1987; Robinson, 1997). In terms of the financial means, the influence of family income was also shown in some previous research that long-term care could be more afforded by families with the ability to pay (Greenberg and Ginn, 1979; Evashwick et al., 1984; Morris et al., 1987; Lee, Kim, and You, 1997; Wu et al., 1997). It will be also more feasible if the families prefer some other alternatives such as staying at own home rather than nursing home entry (Mittelman et al., 1996).

7.3.2 Were there any other alternatives ?

This study focuses on the consumer perspective of alternatives but not the appropriateness of these alternatives or how realistic they were for each individual patient. As mentioned above, there was little evidence in this research of extensive packages of care being provided to help elderly people stay at home rather than entering nursing homes. The hired-helper was the most popular option mentioned by the elderly patients and their families and might be the only familiar one to the public. Residential care was another option for those elderly people who were either not frail or had a low degree of frailty. However, the traditional view about residential care homes often prevented families from utilizing them in Taiwan because they tended to indicate children's lack of filial piety or abandonment (Hu et al., 1996).

Day care centres and respite care in some institutions were available in some areas but, the respondents alleged, were not convenient because of transport problems. Meals-on-wheels and domiciliary services were not available in most places. The home care program was available for those frail chair/bed bound persons who met the criteria/qualifications of the home care organization[1]. However, because the home visiting nurses only visited each patient every ten days on average (Yu, 1990), the patients also needed a carer available at home. Nursing home care is a new option for people searching for post-hospitalization care and for the placement of frail elderly people whose families are unable to care for them at home. The definition of a nursing home was often unclear and most of the elderly patients and their families confused it with residential care. This result is consistent with the finding in a focus group study of elderly people and their siblings in Taiwan (Lai et al., 1996). In this case, the long-term care options available in the community were considered all together and seldom distinguished them by service levels even the professionals. An explanation may be that a long term care system is still developing in Taiwan and clarification is lacking about institutional care, home care and community care. Nor were all these kinds of care available in each locality.

In summary, the concept of nursing home care in Taiwan originated in the skilled nursing home in the US. The DOH has introduced nursing homes in order to offer another option for frail elderly people. The DOH wished to establish a long term care system, with residential care provided by the MOI system. The key criteria of a nursing home in Taiwan is that a senior registered nurse supervises during the day shift and that coverage by a licensed nurse must be available on a 24-hour basis. In reality, most of the registered nursing homes take care of frail elderly patients who need round the clock nursing treatments or who have long-term illness or disabilities. In this research, 71% of them had high dependency levels measured by JUSSR and more than 85% of them had three or more items of ADLs difficulties. However, there were a small number of less frail people admitted into nursing homes who did not need medical supervision, but did require a protective environment in which to

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[1] Screening criteria for the recipients of home care program (which is not means tested) are related to the frailty of the elderly people as follows: (DOH, 1993)
a)Frail elderly patients with chronic illness who need long-term care and have been diagnosed by doctors.
b)Frail elderly patients with chronic illness who need long-term care after hospitalization.

live and personal care. Personal care includes assistance with meals, dressing, walking, bathing or help with other personal needs. It also includes general supervision and oversight of the physical well-being of the individual.

Therefore, the definition and scope of nursing home care in Taiwan could be further defined in detail. For example, in the US, skilled care facilities provide continuous nursing care and observation, with frequent medical supervision and patients may be certified to receive Medicaid and /or Medicare payments. Intermediate care facilities provide basic nursing care for residents who have long-term illness or disabilities; have reached a stable plateau and are unable to provide for their own needs. These facilities may be certified to receive Medicaid payments, but not Medicare benefits (Slevin and Roberts, 1987). If the nursing homes need to be divided between skilled care and intermediate care according to the level of nursing care provided to each patient as in the US, the same may be of relevance to the reimbursement policy of the National Health Insurance for long-term care in Taiwan. Case-mix and case-payment are topics of much research especially in the USA (e.g., Schneider et al., 1988; Weissert and Musliner, 1992; Fries et al., 1994). An extension of community care including visiting nurses and domiciliary services may fill the gap and delay the need for institutional care in community.

7.3.3 Choice, discussion and control

The implication of "choice" has been that, given the information, elderly people, users of services, will be able to select the 'best buy' from a range of available long-term care services (Allen et al., 1992). The main questions posed here were the extent to which elderly people had a choice in the care services which they received, how they were helped to make choices by means of information, advice or counseling in any form, whether they had enough say in discussions before a choice was made or any control in the process. There can be no doubt that moving into nursing home is one of the most critical decisions a person may ever take. It is a decision which should be made only after all the options have been presented and fully considered. How much choice did elderly people have in the decision making process? Their roles in terms of choice, discussion and control in the process were explored through the interviews with them.

Allen reported that "If people are to use services or to exercise choice over whether they might use services or not, they have to be aware that services exist." (Allen et al., 1992, pp. 297). The consumer must know not only what is on offer but also what it consists of. In this study, it was found that the sample elderly patients in the nursing homes had known very little about the services which might be available to help them stay at home. Nearly half (43%) said there was no *choice* except to move into the nursing home when the decision was made, while as many as 30% said they had no idea about choice. The majority of elderly respondents (92%) did not really understand what a nursing home was except that it was an alternative to care in hospital. Among 68 responding elderly patients, 65% (44 people) of them said "no, they had no *discussions* at all before the decision"; 31% (21 people) of them said "yes, they had some discussions with their families before entry" and 4% said "don't know". With regard to their exercising *control* over entry to the nursing home, the majority of elderly patients (75%) said they had no control at all. Only 21% of them said "yes" and if they wanted to they could still go back home. The other 4% did not know.

These questions were also asked of the families. Most (94%) of the elderly patients had not exercised their choice for this entry. Sixty-nine percent (110 people) of the responding families reported that there was no discussion with their elderly relatives in terms of moving to the nursing home. Eighty seven percent of the responding families indicated that their elderly relatives had no control regarding the nursing home entry. The families argued that usually, their frailty and lack of information of the elderly patients restricted their ability to exercise choice and control. Most of the time, they were too frail or confused to participate in the process and often their families exercised choice and made the decision for them.

There was little evidence found in the study of Allen et al. (1992) that elderly people could operate as "informed consumers". It could be argued that elderly people might find it difficult to seek out information about services or to be aware of what was available before they needed care (Allen et al., 1992). In the US, Rodgers (1997) stressed that few people plan ahead or know how to plan ahead for the services they might need in old age, and also lack of preparation for the nursing home placement. Perhaps elderly people's carers or families were in a better position to find out about services, certainly after the need for them had become apparent. In

fact, families played very important roles in the decision-making process and most of them were in fact the decision-makers. In this study, any information given was transmitted verbally. Few received written information about long-term care services. Most of the families accessed the services by relying on their past knowledge (often accidentally). There was little evidence of the care planning envisaged by the DOH or the discharge plan organized by the professionals or hospitals. In reality, the professionals contacted in the study usually had a partial selective knowledge of long-term care services in their areas. They could only suggest what they knew or were familiar with. It takes time and needs a team approach for professionals to find out about services and to discuss the options with the potential users.

Another issue is how the decision making process satisfies the users and supports the carers when the views of the two may be completely incompatible? It remains to be seen the extent to which differences existed in the process between elderly people and their families and how it would influence the outcomes. This issue was beyond the scope of this study and needs more research.

7.4 FAMILY DYNAMICS IN THE PROCESS

Nursing home care, is counter to the traditional pattern of "filial piety" which means that elderly relatives are cared for by family members at home. Under this traditional system, the mainstream care for elderly people in Taiwan was at home cared for by family members. According to the SSRSC (1996), more than 77% of the elderly people who needed care assistance were at home and were cared for by their families in Taiwan. Another 11% of the elderly people received other alternative forms of care such as hired-helpers or care by relatives and friends nearby. Only 10% of them received institutional care such as hospitals, residential homes or other long term care institutions (see also Table 6-4). It appears that institutional care has always been the last solution for families when seeking care outside their own homes. In a nursing home, placements often occurred after many other alternatives had been attempted. Decisions were often made after enormous pressures on the family. This analysis has tried to reveal common problems and issues that families faced in the decision making process and the impact on the family dynamics and relationships.

7.4.1 Caregiving resources in the family

As noted above, most of the elderly patients in nursing homes lived in three-generation families prior to admission and were cared for by informal carers (mainly spouses or daughter-in-laws). More than 77% of them lived together with their carers where the families took care of their elderly relatives. Most (78%) of the carers gave functional care and personal care regularly, while 13% of them helped out elderly relatives sometimes and 8% of them helped out only in an emergency.

In this study, 93 people among 162 responding families indicated that they were the primary carers and experienced the caring tasks before the entry. Most (80%) of them were female and 20% of them were male. The mean age of the carers was 54 years (52 years for women and 56 years for men). The majority of them (91%) were married and had 3 children on average. In terms of their relationships to the elders, 41% of them were children of the elderly patients, 34% were sons/daughters-in-law, 22% of the carers were the patient's spouse and the other 3% were other relatives. On average, carers had higher educational levels than their elderly relatives. More than 36% of them had education to college and above levels, 26% of them had high school level, while 16% of them had secondary school level and 22% had primary school or under levels. Table 7-13* gives the demographic detail of the carers in the study. In comparison with the elderly patients in nursing homes, it shows that the educational level of the carers (younger generation) was much higher than the nursing home patients (old generation) in Taiwan (see also Table 6-14*).

Regarding the length of caregiving time, the carers took care of their elderly relatives for 2 to 3 years on average before admission to the nursing home. Yet there were still 20% of the responding families (the *mode* in this study) who gave up their care in the first 6 months mainly because of increasing frailty or serious illness of their elderly relatives. The families had exhausted their ability to give care. Although about half of the carers indicated that someone else could be available for their caring task (hired-helpers, other families (mainly spouse, children or sister-in-law/relative)), these could offer little substantial help. The substitute carers could help temporarily by such activities as offering alternative medication, providing several hours' care, visiting or spending time with the elder relative on occasions but

they were not able to care for the elderly relative by themselves. Caring for the parents-in-law by daughters-in-law in rotation is common in Taiwan (Wu and Lin, 1999). However, the usual pattern is to transfer the parents to different children's homes, thus, still only one carer is available each time. A lack of substantial support either from the family network or in the community was common mentioned by the responding carers. Respite care has only recently been introduced by the government. It has been tried in several institutions.

7.4.2 The carer's role in the process

The carer's role and changes in the patterns of caregiving are prominent in research on family decision making across the world (Colerick and George, 1986; Pruchnow, Michaels and Potashnik, 1990; Smallegan, 1985; Mcfall & Miller, 1992). Numerous research studies have emphasized how the relevant changes in the social situation of the carers and their relationship to the elderly relatives influenced the decision to institutionalize (Freedman et al., 1994; 1996; Horwitz et al., 1996; Wu et al., 1997). In this cross-sectional study of interviews with the carers in the responding families questions about their social situation when they were carers were explored.

In terms of the types of relationship, the majority (75%) of the carers identified in this study were elderly patients' children (including son/daughter-in-law), 22% were spouses and only 3% were other relatives. More than 60% of the carers said that they felt at least some pressure to care for their elderly relatives when they first became carers, while the other 40% said they did not feel pressure. In terms of the carer's burden, numerous factors are involved which may include elderly relatives' functional disability, cognitive impairment, lack of social support, carers' relationship to the elders… etc.. What factors caused their feelings of burden were not included in this research. However, after experiencing the caregiving tasks, 72% (74 people) of the carers in this study felt the task was a burden and another 13% (13 people) of them felt it was extremely burdensome and that they could not continue the task. In this study, most (77%) of the carers lived with their elder relatives when they provided caregiving and nearly all (99%) of them said that they had involved in the decision making process. In order to explore the issue further in depth, a question

about 'reasons for the difficulties in keeping their elderly relatives at home' was asked. The main reasons mentioned by the carers were the further physical deterioration of the patient, no carers were available either because of poor health or for reasons of work. Furthermore, lack of social support and social networks in the community, such as discussions with the professionals were other important reasons which were consistently mentioned by more than 90% of the carers. Many carers indicated that "Although sometimes you could rotate the caregiving tasks with siblings or hired-helpers, there was no help from outside. You have to count on yourselves.". They complained "Carers often carry the pressure of being criticized about their caregiving tasks, but little social networks for carers could be found in the community. Sometimes we just did not know how to deal with caring for such a vulnerable patient at home let alone the emotional problems". This result is consistent with the study of Wu and Lin (1999) and may be explained by Evandrou's study (1996) that co-resident carers are more likely to experience a low level of social support than other types of carers, which may also have implications for their feelings of stress, general health status and quality of life.

Regarding their self-rated health, nearly 60% (61 people) of the carers in this study indicated that their health became worse after caregiving, while 31% of them said that there had been no change in their health. When 'willingness to be a carer again if needed' was asked, half of the carers were conservative in their attitude and made no comments. Another 31% said yes, if they had to, while about 20% of them expressed unwillingness to be a carer again. The reason for willingness to be a carer, is beyond the scope of this research but is an important area to be further researched.

As a consequence of the nursing home placement, the family members experienced the need to redefine and change roles. The role for family members changed from being a primary carer to feeling they were an "outsider" in the nursing home. Some family members attempted to continue assisting their elderly relative in an instrumental role such as feeding and monitoring care; others shifted to a more involved role including being with the relative constantly. As Rowles and High (1996) showed, family members remain fully involved in terms of the individualizing and personal care and providing a continuing link to the patient's personal history and preferences after elderly relatives are admitted to a nursing home. This is the kind of support that nursing home staff have neither the time nor the knowledge of the

patient's life and personality to provide. The visiting patterns of the responding families showed the high frequency of their visits (Table 7-14). After checking with the nursing staff, there were only a few patients whose families seldom turned up and most of these were for geographical reasons. While the majority (98%) of the patients in registered nursing homes were visited by their families every month, most were visited much more frequently (Table 7-14). For those relatives who did not come often, it was found that in some cases, the hired-helpers were substitutes. Hiring another helper in the nursing home also reflected some of the families' uncertainty and lack of information about the relative's health status and about the care received.

Table7-14. Visiting pattern of families to the nursing home

VISITING PATTERNS	NO.	(%)
Every day	63	38.9%
Every other day	27	16.7%
Once or twice a week	59	36.4%
One week≤Two weeks	8	4.9%
Two weeks≤One month	3	1.9%
One month≤Two months	1	0.6%
Two months≤Six months	1	0.6%
Six month and over	0	
Total	162	100%

Source: Author's survey, 1998.

7.4.3 The families' experiences about admission

Although less than 60% (93/162) of the responding families had ever provided day-to-day personal and functional care for their elder relatives, all the responding families had participated in some form of the caregiving relationship with the elder relative, often at great personal cost. Their caring arrangements varied from actually living with the elder and providing care to taking responsibility for money management and living situations. In this study, how the families' feelings and perceptions associated with the decision to use a nursing home were explored by interviewing family members. Among the 162 responding families, almost all (160 people) of them admitted that they were the important members in the decision

making process for their elderly relatives (Of the other two, one was the grandchild of the elderly patient and in the other case the main decision maker had emigrated). It was found that the decision for nursing home entry was usually made within families by consulting with family members, especially the adult sons of the elderly patient. Although more than half of them said that the admissions were planned, they had lacked information and advice from professionals. The families often searched for help by themselves and decided about their elderly relatives' admission on their own. As Johnson (1992) indicated, lack of information and knowledge about the nature of nursing homes made most family members feel uncertain. There was uncertainty about a number of questions such as "Is this the right place for my relative?", "What is expected in the nursing home?", "Who is in charge here?", "What are the possibilities?", "Can s/he be kept from deteriorating?", "What services are most needed for my relative?". Lynott (1983) suggested that a decision begins on an emotional basis and that families seek to find a rational explanation over time. Although the emotional reactions cannot be judged by this study, previous studies suggest that often distress, guilt and pressure from other relatives and neighbors about this admission overwhelmed the families when they recognized that entry to a nursing home was needed (Allen et al., 1992; Johnson, 1992; Dellasega and Mastrian, 1995).

In the decision making process, for those coming from their own homes, more than 54% of them asked for help mainly their families, relatives and friends. Some of them knew about the nursing home accidentally from reading the newspapers or advertisements (15%). Less than 30% of these families had asked for help from the professionals. This finding was also echoed by Willoughby's study (1988) in which he reported that health care professionals offered little help with families in making decisions. Only for the group of people coming from hospitals, was this placement suggested in the main (58%) by the professionals such as doctors, nurses and social workers. 38% of them said that nursing home services were still suggested by families or relatives, while for the other 4% the suggestions came from the care assistants in hospitals. As previously mentioned, information about the nursing home and access to it was a little bit easier for those patients who had been hospitalized recently.

In fact, more than 90% of the responding families in this study felt that it was difficult to keep the elderly patients in their own homes because of varied reasons. The main reasons mentioned were the physical deterioration of the patient (57%), no caregiver was available because the caregiver has to participate in the work force or was not well (49%), and lack of suitable housing for the patients (44%).

Too much burden in the carer's own home, reflecting an inability to care for the patient simultaneously was also a frequent reason and was mentioned by 18% of the families. As Johnson indicated in his study (1992), "Families expressed frustration in not knowing how to balance the needs of self, of younger family members, and of the patients." (pp. 301). Most of these families acknowledged that they did not see the same level of care in the nursing home as that provided by relatives at home. The care might not be so sensitive. Yet some of these families also recognized that they were not able to continue that care because of their own health or other obligations. This recognition was insufficient to allay feelings engendered by a family member's sense of lack of caring. They had considerable anxiety about how good the care in nursing homes might be and whether their elderly relatives would like living there. After admission to the nursing home, families often hoped to continue to be involved in some useful caring work. This was also evident from their frequent visiting and engagement in the nursing home activities. In other words, after admitting their elderly relatives, families may feel relief in one way (physically) but suffer quite a burden in another (psychologically and culturally).

When questions were asked about the government's responsibility about the care of elderly people, most of the families said that it was important that nursing home care should be covered by the National Health Insurance Scheme in the future. Otherwise, they really could not afford the payment for long. Due to traditional filial piety in Taiwan, more than half (58%) of the responding families said that taking care of the elderly people should be equally shared by the government and the families, while the other 23% preferred more government responsibilities and 19% of them emphasized more family responsibilities. This result is also evident in Kwon's study (1999) in which he showed that because of the traditional view of welfare for older people, a welfare mix (i.e., shared by the state and the family) fits with the Confucian view of ethics.

7.4.4 Family function scale

UW-FACS, developed in US, was used to measure the family function of elderly patients in this study (see 4.5.3 in Chapter 4). This screening family assessment instrument included items representative of the major sectors associated with functional caregiving family systems. This scale looked into the dimensions of family functioning relevant to providing care for elderly parents. It is a reliable and valid measure that assesses caregiving at the family system level (Greenberg et al., 1993). According to Greenberg et al., this scale has been shown to be correlated significantly with clinical ratings of the family's overall functioning, the degree of family stress and the caregiver's mental health (Greenberg et al., 1993).

According to Greenberg (1993), the family function score could be interpreted as follows: the UW-FACS total score was negatively related to the level of carer's stress, with higher levels of family functioning associated with lower levels of carer's stress. It is positively related to the clinical rating of the carer's mental health, positively related to the clinicians rating of the organizational ability of the family and negatively correlated with clinical ratings of family conflict.

In this research, there were 125 families of the elderly patients completing this scale. The average score was 72.46 ± 9.82 (Table 7-15*). When comparing them between the visiting pattern of the families, there was no statistically significant difference (Kruskal-Wallis $\chi^2 = 2.37$, $p>0.05$). However, the family functional scales seemed to be slightly lower among those families who visited less than once a week but the small sample of this group had made it difficult to distinguish significance. It was found that families with higher visiting patterns had also better family function which is important for the carers to extend their caregiving roles after the nursing home entry of their frail elderly relatives. The Cronbach's alpha of the UW-FACS is 0.89 (n=125 cases) in this study which shows its high internal consistency of reliability.

Because this scale was not available from the SSRSC, 1996, it is not possible to make a comparison with the social norm of the family function in Taiwan. There has been only one piece of research in Taiwan using the family function scale as an index. That was the Lin's study which focused on the family function scales between three types of care (day care, home care and nursing home care) (Lin et al., 1997). In

her study, no significant difference was found of the family function scores between the families looking for different types of care for their elderly relatives. In comparison with the Lin's study in 1996, the family function scores of the nursing home group found in her research was slightly (less than 3 points) higher (average score=75.16)[2]. Although this score difference may be partly explained by different interviewers who undertook the investigation at different times, the family sample size in this study (n=125) was bigger than Lin's in 1996 (n=25 for the nursing home group). The other reason, which may be more important, was that the Family Function Scale in this study was put in the last part of the questionnaires and investigated in the interviews. Through the interviews, the interviewees may be more likely to reflect their true feelings and the real situation rather than just filling in a questionnaire (in Lin's study).

7.5 AFTER ADMISSION

7.5.1 Visiting patterns

As mentioned above, the visiting patterns of elderly patients' families to nursing homes were, on average, quite frequent. Thirty-nine percent of the responding families visited their frail elderly relatives every day and 17% visited their elderly relatives every other day, while 36% visited less than weekly. That is, 92% of the responding families visited their elderly relatives in the nursing homes at least once a week. This pattern of frequent visits from family members and friends were also evident in some previous research (Weaver et al., 1985b; Neill et al., 1988). For those who did not visit often, the main reason was geographical. For example, families had moved to another county or even emigrated to another country. In these cases, their grandchildren or other relatives nearby came to visit instead, though not

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[2] Family function scores between three types of long-term care in the study of Lin, et al. (1997):

Types of care	Numbers	Means	SD	F value
Home care	32	77.13	10.53	0.25
Day care	30	76.00	11.41	
Nursing home care	25	75.16	9.17	

p=0.78, p>0.05.

Source: Lin et al., 1997.

N.B. The result showed that there were no significant difference of the family function scores between three types of long term care. The author concluded that in Taiwan, there was no evidence that elderly people were

as often. However, according to the nursing staff in the nursing home, it was also found that one or two elderly patients in a fifty-bed nursing home on average were seldom been visited because of their bad temper, mental deterioration or because they were difficult to get along with. Families' visiting patterns reflected their care. It was evident that most of the families came to visit quite often and got involved in the caring tasks after admission. However, traditional concepts made them felt guilty about the nursing home decision, or at least, they were reluctant to talk about these family problems to an outsider.

7.5.2 Degree of satisfaction

Two self-rated questions: health status and happiness were asked and combined with subjective measures of patients' satisfaction with services in homes in order to check consistency of response. In terms of their health, nearly 81% of the responding elderly patients said they felt good or OK, while 19% of them said their health was poor. A question rating happiness with their life in nursing homes had similar distributions. Table 7-16* records the response of elderly patients to the question " Are you happy with your life in the nursing home?" and shows their self-rated happiness. About 29% of the responding elderly patients felt happy most of the time; 27% felt happy sometimes and 25% made no comment. Another 18% indicated they seldom felt happy and 1% complained they never felt happy in the nursing home.

Satisfaction has become an outcome measure that acts as an important indicator of the quality of care (Wagner, 1988). The question "Are you satisfied with services in this home?" was asked to measure elderly patients' well being in the homes. Table 7-17 shows the results. These figures showed that the majority (72%) of elderly patients were satisfied with the services in nursing homes (7% very satisfied; 43% satisfied and 22% fairly satisfied), while 18% of them felt dissatisfied for various reasons. According to the interviews with elderly patients in nursing homes, in general, they accepted their life in the homes although unwillingly. Some felt extremely unwilling to stay and wished to go back to their own home. On the

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sent to different long-term care placements because of the differences of their family functions.

other hand, some felt relief at no longer burdening their families.

Table 7-17. Elderly patients' satisfaction with services in the nursing home

SATISFACTION	Numbers	Percentages (%)
Very satisfied	5	7.4
Satisfied	29	42.6
Fairly satisfied	15	22.1
Neither satisfied nor dissatisfied	7	10.3
Fairly dissatisfied	5	7.4
Dissatisfied	5	7.4
Very dissatisfied	1	1.5
Don't know	1	1.5
Total	68	100.0

Source: Author's survey, 1998.

Asked if any particular thing made them feel satisfied or dissatisfied, more than half of the elderly respondents said nothing in particular. 60% said that life in here was better than they previously thought, while 19% indicated that they felt worse than previously thought and 21% said don't know. The most frequent reasons for satisfaction were the good environment and considerate staff, whereas the reasons for dissatisfaction were mainly 'food' and 'felt neglected by care assistants'. Table 7-18* lists the main factors identified by the responding elderly patients for their satisfaction and dissatisfaction with services in the nursing home. Satisfaction with the caring aspects of home life included statements about the kindness and industriousness of staff and particularly that they felt safe in homes where staff were on call twenty four hours of the day. Good facilities offered better services such as physical therapies and easy access to renal dialysis in a hospital-based home. Good environment including cleanliness and a sense of orderliness were some other reasons for satisfaction. At the same time, some elderly patients felt a lack of privacy and quiet because of shared rooms. A further two said they were bored with living there. Neglect by care assistants was mentioned by five of the responding patients and food was another main complaint mentioned by six of them.

The same questions were asked of the families of elderly patients as proxies for those patients who could not speak for themselves. Table 7-19 shows the results. These figures show that in general, the families of elderly patients felt satisfied with

the services ---7% very satisfied, 56% satisfied and 27% fairly satisfied. However, there were still a small number of them expressing their dissatisfaction (9%).

Table 7-19. Families' overall feeling of satisfaction with services in the nursing home

SATISFACTION	Numbers	Percentages (%)
Very satisfied	12	7.4
Satisfied	91	56.2
Fairly satisfied	43	26.5
Neither satisfied nor dissatisfied	1	0.6
Fairly dissatisfied	10	6.2
Dissatisfied	3	1.9
Very dissatisfied	0	0
Don't know	2	1.2
Total	162	100.0

Source: Author's survey, 1998.

On closer examination, 82% of them said the care in nursing home was better than they had previously thought (118 people) or the same (15 people), while 10% of them (16 people) said care was worse than they had thought and 8% of them (13 people) said they did not know. Again, only a few families commented on particular reasons for their satisfaction or dissatisfaction. The main reasons mentioned for satisfaction were: staff were well trained and considerate (9 people), rehabilitation activities (4 people) and terminal care service (1 person). The main reasons mentioned for dissatisfaction were not enough staff to offer better care (19 people), not one to one care, care was not as good as that offered in own home (2 people), and need more rehabilitation activities (2 persons). In general, the results were consistent with the opinions of the responding patients.

7.6 PAYMENTS

A central issue in the provision of nursing homes is the financing of this form of care. Who pays is one element which is now discussed.

7.6.1 How much

In this research, the monthly payments needed by each patient in the registered

nursing homes of Taiwan are shown in Table 7-20*. As we can see, for some homes the payments were up to more than NT. 60,000 and the minimum charge was around NT. 20,000. Both the median and mode were between NT. 30,000-40,000. In terms of different types of home, the hospital-based public sectors tended to charge more than hospital-based private sectors followed by the freestanding nursing homes. The cost of living was likely to be higher in the Capital (Taipei) also needs to be taken into account.

It should be noted that many nursing homes still choose not to be DOH registered in Taiwan. Among the reasons given by Wu (1995) are: too stringent regulations, lack of knowledge about how to apply for registration, and too small to be a formal registered home as previously mentioned (chapter 5). In order to attract consumers, their charges tend to be lower than the average of registered nursing homes. The licensing requirements for all registered nursing homes are identical, and these standards must be met if a home is to be DOH approved.

7.6.2 Method of payment

Most of the nursing home fees were paid by the sons of the elderly patients. According to the responding families in this study, methods of payment were (Table 7-21*):

- by some combination of the families: 43% (such as contributed by each son, or sometimes paid by sons and spouse or daughters of the patients),
- by one of the sons: 31%,
- by daughters: 4%,
- by patients themselves: 14%
- by spouse only: 9%.

It should be noted that most of the payments were contributed by a number of family members rather than by one person only. In other words, the personal income or household income of one person may not reflect the ability of the elderly patient's family as a whole. Traditionally, an elderly relative's problems were solved by contributions from all the sons. It is also common that the financial burden of nursing home payments is shared among the offspring of the elderly people. This is also evident in Kwon's study (1999). He showed that the private income transfers to

elderly households is common in East Asia. However, it may be not enough to secure an adequate standard of living for the elderly households.

On the issue of financial subsidies from sources other than families, it was found that only 16% of the responding families had received a government subsidy because of the elderly relatives' illness. The subsidies are for handicapped people in low income families (see Chapter 1) according to the "Physically and Mentally Disabled Citizens Protection Law" of MOI and for those who had applied for a handbook of handicap. The handbook entitles these recipients to some benefits including financial help and equipment such as a wheelchair. Most of the families (80%) said that they were not eligible for the subsidy and 10% said they were unfamiliar with the policy and procedures for an application. Therefore, the majority of elderly people who lived in the nursing home had to pay for themselves or their families paid. For some families who experienced a financial burden when they placed their elderly relatives in the nursing home, they may move their elderly relatives back to their own homes or find some other alternatives in the community.

7.7 DISCUSSION

In this chapter, a number of issues have been considered. First, the key factors regarding the decision making process in the admission to the nursing home were discussed. Second, were issues of information, choice of the nursing home and the influences of the family members in the decision making process. Finally, limitations of this research and future research directions were considered.

7.7.1 The key factors

Through the interviews with elderly people and their relatives, the factors which influenced the decision making process for entry to the nursing home have been explored. It was found that the average high dependency level of elderly people, carers' availability and an excessive burden for families were the commonest reasons for entry. Evidence from the families' point of views about alternatives to the nursing home shows that need factors, again, have been found to be the most significant factors. These included dependency levels (JUSSR) and lack of ability for daily living

(ADLs). This was especially so for those patients who were reliant on life sustaining measures (e.g. Nasogastric tube insertion, Endotracheal tube insertion...etc.). Abrupt events/crises, acted as push factors, which triggered an inevitable entry. Considering the traditional Taiwanese view that institutionalization is always a last resort after other alternatives having been thought or tried, need factors appeared to be the most obvious ones leading to the demand for nursing home care. This finding is similar to those of Bauer (1996) and Wierik et al. (1992) who found that entry to a nursing home may be affected more by factors related to frailty (e.g., age and health conditions) than other characteristics.

What must also be explained is why some elderly people with similar dependency entered nursing homes, while others remained in the community. Apart from need, this research found other important factors appeared to be crucial in the decision making process that led to nursing home admission. Family income, numbers of children that the elderly patients had and the preferences of carers for institutions have been shown to be significant when elderly people and their families thought about alternatives to nursing homes. For example, when families have a higher income, they are likely to have more choices. Patients with less life sustaining measures means that the severity may be easier to overcome. The more children the patients have suggested that they may find more support from the family network. These factors, then, make alternatives to nursing home entry possible.

In terms of the carer's point of view, it has been shown that apart from patient's condition and families' income, the carer's views about institutions played an important role in the decision making process. This research shows that if the carer accepts the concept of institutional care then they are more likely to accept nursing home care for their elderly relatives and less likely to consider other alternatives. If they did not accept the concept, the stay of their elderly relatives in the nursing home tended to be temporary and short, and often other options would be found afterwards. Carer's preferences towards long-term care reflects what Baldock (1997) has emphasized: it is very difficult to discover user characteristics or service inputs that explain long-term success or failure in home care. "This is partly because the degree to which an old person, and sometimes the carer, are committed to staying at home swamps all other variables..., and therefore it is their unique set of preferences that often explains its success or failure" (pp. 83). The interviews,

showed the feelings of uncertainty, worry and distress still existed among families after the nursing home entry. Their frequent visiting patterns and the fact that some families paid for hired-helpers could also indicate concern about care.

The importance of these factors in the decision making process was found to be consistent with previous research on the risk factors for nursing home admission (see chapter 6). In the majority of cases, the decision making process was considered as a "family issue". Consequently decision were made after consultation with other family members but often the ultimate decision was triggered by crises /events. This result is consistent with the study of Rodgers (1997) and also Greenberg's study in which they emphasize the decision as a family issue (Greenberg et al., 1993).

However, there are some differences between this research and others. Firstly, in the study of Dellasega and Mastrian (1995), family members described making the decision to place an elderly relative in long-term care as one in which only one key family member made the decision. In Dellasega and Mastrian's study, an escalating crisis made it very difficult for one part of the family to decide and it showed the isolated nature of decision making. In the author's study, most of decisions were considered a "family issue" by the family respondents and made within a family context. Secondly, previous research has indicated that co-residence of a disabled older person with their primary carer, rather than the relationship between the two, was associated with a reduced risk of entering a nursing home (Tennstedt, Crawford and Mckinlay, 1993). In the author's study, neither the relationship between the carer and the elder nor the co-residence factor had been found to significantly influence the carer's view toward other alternatives than nursing home care. This may be partly explained by the aspect that in Taiwan, most (77%) of the carers live with their elder relatives when they provide care. In addition, the decision making process was indicated as a "family issue" in Taiwan rather than a matter for decision by one person. Therefore, only the preferences of the carers was found to have some influence as previously mentioned, and the influences of the carer's other personal characteristics such as the relationship to the elder and the co-residence factor have been diminished. Thirdly, previous research showed the connection between the visiting patterns and the degree of the carer's feeling of burden (Zarit et al., 1980) among those caring for older people with senile dementia. Zarit et al. reported that in situations where more visits were paid to the impaired older person from family

other than the primary carer, the burden was less. Greenberg also showed the relationship between the carer's feelings of stress and their family function (Greenberg et al., 1993). He indicated that the family function score was negatively related to carer's stress (i.e., Carers feel less burden while their family function are better). It suggested that a natural support system which involved other members of the impaired older person will be important to the primary carer to prevent a feeling of overwhelming burden and withdrawal from the caregiving role. In this study, only carers' self-rated burden was asked. However, it was hard to distinguish (no significant differences) between the carer's self-rated burden either with family function scores or visiting patterns. One of the reasons may be that the carer's role in the decision making has been diminished because it was considered a family issue and the nursing home admission was often made after consulting with other family members. The other reason may be that most (84%) of the responding families expressed their high self-rated burden (homogeneous group) which makes the sample in other categories too small to detect the difference statistically.

In terms of the choice and satisfaction of elderly people and their families, this research reaffirms that family members involve themselves fully in care after entry to the nursing home. This meant that the families provide individual and personal care for their elderly relatives. The families often went to extraordinary lengths to maximize the patient's quality of life and provide a continuing link between the patient's preferences and the nursing home. However, there was little evidence in this research that elderly people or even their families were able to operate as "informed consumers" in their use of services in the nursing home. First of all, elderly people acted passively in this process, not only because of their illness but also because of the effect of their traditional concept toward filial piety. Elderly people took more account of their children's views as they became ill. Adult children tended to be the most influential people in the families involvement in the decision making process and they took responsibility both financially and emotionally (e.g. stress and pressure from others). However, family members commonly felt a lack of professional input and support from formal services during the decision making process. Lack of information regarding options for long-term care, lack of knowledge regarding the selection of facilities for placement, and lack of familiarity with available resources made it difficult for them to exercise choice. Secondly,

because elderly people themselves could be over-ridden by professionals and pressured by relatives, family members were powerful players in the decision making process. Sometimes this was through their own choice but sometimes because of the inability of the elderly person (particularly if they were confused). The findings showed that health service professionals (i.e., nurses, doctors or social workers) were not the main decision makers in nursing home placements. There was no compulsion to make assessments about need in relation to the patient's circumstances. They also lacked information about long-term care which might have given them more involvement. Other reasons included the influential decisive role that families often played in the process. At the moment, professionals neither have the professional power via assessment nor a legitimate role in the process. Nor are they well informed about alternatives to institutional care.

In selecting a nursing home, family members were particularly concerned with which nursing homes were the "good ones". They wanted to find a place where their older relatives could receive "better care". However, they had only vague concepts about this and little basis for determining what features of a facility were indicators of "better care". For the majority of these families, the quality of care was determined by a general impression, especially regard to "cleanliness"; personal experience or word of mouth of relatives and friends. This was often gained on a personal visit. This may also explain why hospital-based nursing homes are the most popular option at the moment in Taiwan. It was also found that for some families, admission to a nursing home was because there was "no alternative". This might be because only one institution was available within a reasonable geographical area and the elderly person simply "could no longer be cared for" in their own home.

7.7.2 Limitations of this research

In this research, the limitations should be considered when interpreting the results. One possible limitation in doing any study after the event is that people memories may not always reflect what actually happened. Responses about reasons and motivations for nursing home placements may be also colored by the responding families who found a feasible explanation for such an emotional and stressful decision. In addition, this research interviewed all the lucid patients in nursing homes

instead of only those who were admitted for less than one year. Some of them may have found it difficult to remember details about their nursing home admission. Also those who were confused were excluded from the interviews. Another point worth noting is that the samples in this study (elderly people in the nursing home and/or their responding families) are a group of people who had all made the decision to enter a nursing home. People who had decided to stay in their own homes were not included in this research.

Finally, the decision-making process is complex and influenced by many changeable factors which are changing. This study has taken place at a time of transaction in Taiwan. Traditional well established views about family obligation still prevail. At the moment in Taiwan, traditional functions of the families provide the primary informal caregiving resources less regard to the relationship and feelings between family members. An old Taiwanese proverb states that "After a long illness, there will be no filial sons.". Elderly people generally reckoned that if one's health continues to deteriorate, they may place too much of a burden on their families. In the future, availability of family care will not only depend on families' ability to provide care but also their willingness to do so (Salvage, 1995). Although there is no evidence that families are no longer willing to care for their elderly relatives (Sinclair, 1990; McGlone and Cronin, 1994; Salvage, 1995), family and social change such as increasing divorce rates and increases in female employment could further reduce the availability of the family caregiving force (Laing and Buisson, 1998). "Keeping elderly relatives at home as possible as we can" may no longer be a priority for the coming generations. As Salvage (1995) indicated, it will also depend on the availability of alternative care resources and on public policies and ideologies. The situation could also change if elderly people had more financial resources of their own and could play a bigger role in decision making. Another factor which could influence the decision making process would be the greater availability of community care services such as home carers, meals and respite services.

7.7.3 Future research

The long-term care of older adults and the complexity of intergenerational relationships present rich and significant areas for study and intervention. The

quantitative research design used in this research based on structured questionnaires gives a general picture. Future research would be also benefit from a qualitative approach which would explore in-depth other factors in terms of intergenerational exchange (such as the psychological factors, the social norm). Also, long-term care decision-making process is dynamic (Gonyea, 1987; Kane, R. A., 1995) and has complex value-related dimensions (McCullough et al., 1993). A changing social, political and economic situation means that future research needs to be developed within this framework.

Table 7-3. The most frequent reasons given by the 67 elderly patients for admission to a nursing home

Reasons for admission	Percent stating reason*
My family arranged this entry for me	76.1%
No carer was available in patient's own home	53.7%
It is too much burden for the families if the patient lives at home	17.9%
Illness in family	9.0%
Fear factor such as fear of falls, fear of being unable to cope, general anxiety and insecurity	9.0%
Patient's preference	8.8%
Suggested by Dr./nurses/social worker (by professionals)	5.9%
Inability to obtain or retain adequate hired-helper	4.5%
Pressure exerted by family	4.5%
Other reasons (e.g. one of my family works here, problems with transport)	4.5%

* Total of column exceeds 100 percent because many respondents gave more than one reason.
Source: Author's survey, 1998.

Table 7-4. The most frequent reasons given by the 162 family members for admission to a nursing home

Reasons for admission	Percent stating reason*
No carer was available in patient's own home	56.8%
It is too much burden for the families if the patient lives at home	44.4%
New specific health problem in patient	34.0%
Gradual physical deterioration, increasing frailty, old age, in patient	29.6%
Planned ahead, anticipating future needs of patients	26.5%
Worsening continuation of specific health problem in patient	23.5%
Suggested by Dr./Nurse/Social worker (by professionals)	20.4%
Mental deterioration, dementia in patient	16.7%
Illness in family	14.2%
Inability to obtain or retain adequate hired-helper	11.7%
Fear factors such as fear of falls, fear of being unable to cope, general anxiety and insecurity	9.3%
Other problems in family (death, social problems, financial relocation or return to work of family members)	6.2%
The patient thinks s/he needs this kind of service (patient's preference)	4.9%
Patient can not move, not easy to take care of at home	3.7%
Pressure exerted by family	3.7%
Hospital discharge plan	1.2%
Other reasons (e.g. Insurance reason, temporary admission, rehabilitation facilities in home, need dialysis, hospice care)	6.2%

* Total of column exceeds 100 percent because many respondents gave more than one reason.
Source: Author's survey, 1998.

Table 7-6. "Who suggested the nursing home entry" and patients' source of admission

Source of admission	Spouse (%)	Children (%)	Medical staff (%)	Relatives (%)	Friends/Neighbors (%)	Care assistants (%)	Total
Hospitals		4 (10)	23 (57.5)	4 (10)	7 (17.5)	2 (5)	40 (100)
Own homes	3 (11.5)	6 (23.1)	8 (30.8)	5 (19.2)	3 (11.5)	1 (3.8)	26 (100)
Total	3(4.5)	10 (15.2)	31 (47.0)	9 (13.6)	10 (15.2)	3 (4.5)	66 (100)

Ps. There were 66 responding families answered this question after the question which they answered the nursing home entry was suggested.
Source: Author's survey, 1998.

Table 7-8. Responses to the question 'Why wasn't the care/service arranged?' mentioned by 17 responding elderly patients

	Numbers	Percentage (%)
Too expensive	4	23.5
Family reject this idea	4	23.5
Quality of care is not good enough given by hired helper	2	11.8
Can not find or keep the helper	2	11.8
Do not trust the helper	2	11.8
Time for the application to be processed	1	5.9
Not enough to match patient's need	1	5.9
Don't know	1	5.9
Total	17	100

Source: Author's survey, 1998.

Table 7-9a. Responses to the question 'Were there any other options you could have taken for the patient other than nursing home entry?' answered by 159 responding families.

	NO. (persons)	Percentage (%)	
Yes	69	43%	
Hired-helper	57		83%
Cared by family	6		9%
Others (day care; home care program)	6		9%
No	82	52%	
Don't know	8	5%	
Total	159	100%	

Source: Author's survey, 1998.

Table 7-9b. Reasons 'why the care/service wasn't arranged' mentioned by 65 responding families

	Hired helper	Cared by family	Others	No.	%
Can not find or keep the helper	11		1	12	18.5
Family reject this idea for combined reasons (e.g. quality concerned, communication problem, don't like a stranger stay at home…etc.)	6	3	2	11	16.9
Do not trust helper	9			9	13.8
Too expensive	9			9	13.8
No hired helper of adequate quality	8			8	12.3
Have to care for patient at night, feel pressure	4	1		5	7.7
Not enough to match patient's need	1	1	2	4	6.2
Time for the application to be processed	2			2	3.1
Spouse died	2			2	3.1
Patient reject this idea	1			1	1.5
No space for helper at home		1		1	1.5
Did not know before			1	1	1.5
Total	53	6	6	65	100

Source: Author's survey, 1998.

Table 7-10. Responses to the question 'Why did you think there was no other alternatives at all?' mentioned by 68 responding families

	Frequencies	%
Patient is too frail	24	35.3
Do not know how to care patient at own home	10	14.7
Do not trust helper	10	14.7
Do not want a helper staying at home	6	8.8
No one is available for caring	5	7.4
Patient needs rehabilitation	3	4.4
Family reject this idea	2	2.9
Patient needs dialysis every week	2	2.9
Too expensive	2	2.9
Patient needs treatment	2	2.9
Patient has tendency to violence	1	1.5
Too small space for the patient	1	1.5
Total	68	100

Source: Author's survey, 1998.

Table 7-11. Bivariate analysis (including results of Chi-square tests and Odds Ratios, 95% confidence intervals)

Variable	Groups	χ^2 p-value (for original grouping)	Yes (Q14)	No (Q14)	Odds Ratio (95%CI)
JUSSR category					
	0-10		6	4	1.0
	11-20		18	10	1.5 (0.4-6.2)
	21+	**0.048**	45	67	0.6 (0.2-1.9)
JUSSR category II					
	0-20		24	14	1.0
	21+	**0.014**	45	67	**0.4 (0.2-0.9)**
JUSSR (self care)					
	Low		9	6	1.0
	Medium		11	8	0.9 (0.2-3.6)
	High	0.232	49	67	0.5 (0.2-1.5)
JUSSR (orientation)					
	Low		16	6	1.0
	Medium		25	30	**2.4 (1.2-4.7)**
	High	**0.018**	28	45	0.7 (0.5-1.2)
JUSSR (social integration)					
	Low		4	3	1.0
	Medium		29	19	1.1 (0.2-5.7)
	High	**0.026**	35	59	0.4 (0.1-2.1)
Age					
	65-74		17	27	1.0
	75-84		31	32	1.5 (0.7-3.4)
	85+	0.506	21	22	1.5 (0.6-3.6)
Gender					
	Female		48	47	1.0
	Male	0.144	21	34	0.6 (0.3-1.2)
Educational levels					
	Primary school and below		57	61	1.0
	Junior high		4	3	1.4 (0.3-6.7)
	Senior high		4	5	0.9 (0.2-3.3)
	College and above	0.327	4	12	0.4 (0.1-1.2)
Education levels (II)					
	Primary school and below		57	61	1.0
	Junior high and above	0.277	12	20	0.4 (0.1-1.2)
Family function scale					
	45-54		3	4	
	55-64		28	29	
	65-74		19	21	
	75-84	0.896	2	4	
Family function scale (II)					
	0-64		12	8	1.0
	65+	0.249	44	52	0.6 (0.2-1.5)

Variable	Groups	χ^2 p-value (for original grouping)	Yes (Q14)	No (Q14)	Odds Ratio (95%CI)
Marital status					
	Single/divorced/separated		1	1	1.0
	Married		28	45	0.6 (0.0-10.4)
	Widowed	0.216	39	35	1.1 (0.1-12.5)
Marital status (II)					
	Non-widowers		29	46	1.0
	Widowers	0.085	39	35	1.7 (0.9-3.3)
Activity					
	Need help		37	40	1.0
	Self help		10	5	2.2 (0.7-6.9)
	Bedridden	0.121	22	36	0.7 (0.3-1.3)
Activity (II)					
	Non-bedridden		47	45	1.0
	Bedridden	0.115	22	36	0.6 (0.3-1.2)
Mental state					
	Conscious		32	24	1.0
	Sometimes confused		28	35	0.6 (0.3-1.2)
	Confused all the time	**0.025**	8	22	**0.3 (0.1-0.7)**
Diagnosis of stroke					
	No		37	32	1.0
	Yes	0.084	32	49	0.6 (0.3-1.1)
Tube insertion					
	0		52	38	1.0
	1		9	21	**0.3 (0.1-0.8)**
	2		7	19	**0.3 (0.1-0.7)**
	3	**0.005**	1	3	**0.2 (0.0-2.4)**
Tube insertion (II)					
	Yes		17	43	**0.3 (0.1-0.6)**
	No	**0.001**	52	38	1.0
Number of child(ren)					
	0-1		5	10	1.0
	2		6	15	0.8 (0.2-3.4)
	3		9	11	1.6 (0.4-6.6)
	4+	0.265	43	43	2.0 (0.6-6.3)
Number of child(ren) (II)					
	0-3		21	37	1.0
	4+	0.056	48	44	1.9 (1.0-3.8)
Source of admission					
	From hospital		33	34	1.0
	All others	0.376	34	47	1.3 (0.7-2.6)
Informal help of the carer					
	Yes		38	40	1.2(0.5-2.7)
	No	0.654	15	19	1.0

Variable	Groups	χ^2 **p-value** (for original grouping)	Yes (Q14)	No (Q14)	Odds Ratio (95%CI)
Carer's ideal preference					
	Send to day care		2	1	
	Send to inst. full time		38	62	
	Hire helper		17	9	
	Cared by relatives		3	1	
	Others		0	0	
	Don't know	0.056	0	1	
Carer's ideal preference (II)					
	Institution		38	62	**0.3 (0.2-0.8)**
	Non-institution	**0.007**	22	12	1.0
Family income					
	≤ 50000		12	22	1.0
	>50000	0.127	47	46	1.9 (0.8-4.2)
ADLs					
	0-3		17	12	1.0
	4+	0.129	52	69	0.5 (0.2-1.2)
Relationship to the elder					
	Spouse		7	13	1.3 (0.4-4.1)
	Children		16	17	0.7 (0.3-2.0)
	Son/daughter-in-laws or others	0.616	14	20	1.0
Co-residence when caregiving					
	Yes		31	38	0.8 (0.3-2.6)
	No	0.728	6	9	1.0
Caregiving time					
	≤ 6 months		10	12	1.0
	> 6 months	0.938	26	30	(0.4-2.8)
Willingness to be a carer					
	Prefer not to		7	13	1.0
	No comments		20	29	1.3 (0.4-3.8)
	I will	0.451	17	16	2.0 (0.7-6.2)

Ps. Some information on some variables were missing due to no response from the subjects or from different samples.
Source: Author's survey, 1998.

Table 7-12 . Multiple Logistic Regression Analysis

Variable	Model A		Model B*	
Groups	Odds ratio	P value	Odds ratio	P value
JUSSR category				
0-20				
21+		N.S.		N.S.
Mental state				
Conscious clear				
Sometimes confused				
Confused all the time		N.S.		N.S.
Tube insertion				
No	1.0		1.0	
Yes	**0.23 (0.10-0.57)**	**0.0007**	**0.13 (0.04-0.48)**	**0.0005**
Elderly patient's number of child(ren)				
0-3	1.0			
4+	**2.61 (1.08-6.36)**	**0.0288**		N.S.
Ideal preference of the carer				
Non-institution	1.0		1.0	
Institution	**0.21 (0.08-0.57)**	**0.0012**	**0.10 (0.03-0.42)**	**0.0003**
Family income of the carer				
≤50000			1.0	
>50000		N.S.	**4.90 (0.94-25.44)**	**0.0387**
Relationship to the elder				
Spouse		N.S.		N.S.
Children				
Son/ daughter-in-law				

Ps.

1. N.S.: No Significance.
2. Model A , n= 110; Model B, n= 70 (* carers only).
3. Model A explained 73% of the amount of variation in the response; model B explained 76% of the amount of variation in the response.

Source: Author's survey, 1998.

Table 7-13. Socio-demographic information about the responding carers

Items	Categories	Numbers	Percentages (%)
Age	Under 50	32	37.6
	50<64	34	40
	65<74	9	10.6
	75 and over	10	11.8
Gender	Female	74	79.6
	Male	19	20.4
Marital status	Single	3	3.2
	Married	85	91.4
	Widowed	2	2.2
	Separated	1	1.1
	Divorced	2	2.2
Number of children	1 and under	12	14.4
	2	27	32.5
	3	20	24.1
	4	13	15.7
	5 and over	11	13.3
Educational level	Primary school and under	16	21.6
	Secondary school	12	16.2
	High school	19	25.7
	College and over	27	36.5
Relationship with the patient	Spouse	20	21.5
	Children	38	40.9
	Son/Daughter-in-law	32	34.4
	Relatives	3	3.2
Co-residence when caregiving	Yes	69	82.1
	No	15	17.9
Work when caregiving	Full-time worker	45	48.9
	Part-time worker	8	8.7
	Non-employed	39	42.4
Self-rated burden	Not at all	2	2.3
	No burden	12	14.0
	Feel burden	60	70.0
	Very much burden	12	14.0

Ps. The sum of each categories may not be exactly the same due to missing data.
Source: Author's survey, 1998.

Table 7-15. Family Function Scores among families with different visiting patterns

Family Function Scores	Frequency of visit	Numbers	MEAN	Std. Deviation	Min./Max.
	Every day	45	73.36	9.34	53/93
	Every other day	22	73.64	9.57	48/96
	More than once a week	49	72.20	9.68	45/95
	Others (less than once a week)	9	66.44	12.84	47/82
	Total	125	72.46	9.82	45/96

Kruskal-Wallis $\chi^2 = 2.37$, df=3, $p>0.05$.
Source: Author's survey, 1998.

Table 7-16. Elderly patients' happiness with life in the nursing home

FEEL HAPPY	Number	Percentages (%)
Most of the time	20	29.4
Sometimes	18	26.5
No comments	17	25.0
Few	12	17.6
Never	1	1.5
Total	68	100.0

Source: Author's survey, 1998.

Table 7-18. Factors associated satisfaction or dissatisfaction

Main factors identified	*Satisfaction (number of people)*	*Dissatisfaction (number of people)*
Caring	*The kindness and industriousness of staff (5); *Safe and secure (2)	#Neglected by care assistants (5);
Services	*Facilities for physical therapy (5); *Facilities for dialysis (3)	#Food is not so good (6) #Too expensive (1)
Environment	*Comfortable feeling living here (4); *Everything is in order and clean (2); *Got company living here (1)	#Not enough privacy (3); #Room is not quiet enough for sleeping (2); #Feeling bored living here (2)
Total (patients in total who had expressed reasons)	22	19

Source: Author's survey, 1998.

Table 7-20. Monthly payments in different types of nursing home among 162 responding families

Monthly payments (NT.)	TYPE			Total
	A (Public hospital-based)	B (Private hospital-based)	C (Freestanding nursing home)	
20000-29999	---	2(3.8)	44(89.8)	46(28.4)
30000-39999	22(36.1)	30(57.7)	5(10.2)	57(35.2)
40000-49999	27(44.3)	19(36.5)	---	46(28.4)
50000-59999	11(18.0)	1(1.9)	---	12(7.4)
60000 and over	1(1.6)	---	---	1(0.6)
Total	61(100)	52(100)	49(100)	162(100)

NT.: New Taiwan Dollars
Source: Author's survey, 1998.

Table 7-21. The method of payment for elderly patients in nursing homes of Taiwan

The method of payment	Numbers	Percentages (%)
Patients' sons	50	30.9
Patients' daughters	7	4.3
Patients' spouse	14	8.6
Patients themselves	22	13.6
Some combinations	69	42.6
Total	162	100.0

Source: Author's survey, 1998.

CHAPTER 8

CONCLUSIONS

8.1 INTRODUCTION

In the final chapter, the various parts of the thesis are brought together and conclusions drawn. The empirical data from the research in Taiwan is related both to the literature and to relevant theoretical concepts. A discussion of the main findings and lessons learned from the literature is first considered. Then a summary of the main findings of the empirical research and a discussion of this follows. There is a critique of the methodology and there is also a discussion of some of the ethical issues. Questions are raised about the applicability of the research to other countries and what lessons could be learned both for them and for Taiwan. Finally, further research and some concluding observations are given.

The following is the outline:

- Background to the study
- Aims of the research
- A summary of what was done
- A discussion of the main findings and lessons learned from the literature
- A discussion of the main findings of the empirical research
  - Supply side
  - Demand side
- Some implications
- A critique of the method
- Further research
- Some concluding observations

8.2 BACKGROUND TO THE STUDY

Taiwan is facing a radical change in the composition of its population. It is expected that the population aged 65 and over will treble between 1994 and 2036. One result of this shift is that the growing number of old people, especially the very elderly, may need some form of long-term care.

In response to this, the government of Taiwan launched a 15-year long-term care plan in 1995. The establishment of nursing homes in each county was included as one of the most important elements in this policy. Studies in Western countries have also shown the need for long-term care. For example, in the UK, the risk of needing residential care is one in five among men and one in three among women (The Royal Commission Report, 1999, chapter 3, pp. 25). In the United States, if a person survives to age 65, he or she has a 42 percent chance of spending time in a nursing home before death. Among them, 11% will spend a year or more in a nursing home and 5% will spend 5 years or more (Kemper and Murtaugh, 1991). These findings suggest that for some elderly people, institutional care is likely and that some of this will be in a nursing home.

However, the need for institutional care, especially nursing home care, is a complex issue. It is a result of the interaction between various factors and a balance between people's demand for it and the long-term care resources in the market. Before arguing who really needs nursing home care and estimating how many nursing homes are needed in Taiwan, the current patterns of utilization and what factors that influence its demand and supply are crucial. The establishment of long-term care institutions costs money and reversing a policy takes time. At the moment in Taiwan, it is reckoned that relevant research is crucial to help build up long-term care guidelines in government policy.

8.3 AIMS OF THE RESEARCH

This research is the first study about factors that influence demand and supply of registered nursing homes in Taiwan. The aim is to examine factors that affect the demand and supply of nursing homes and to explore some factors that trigger entry into this form of care. Set within this context, factors which relate to the risk of

institutionalization, the family network in the decision-making process (demand) and the provision of nursing homes (supply) in Taiwan are examined and analyzed.

The hypotheses are that:

- On the demand side elderly people living in nursing homes have a greater need for this kind of care than those living in the community and their characteristics (including dependency levels, socio-demographic factors etc.) are different.
- On the supply side the supply of nursing homes is significantly influenced by the long term care resources in the community and one of the major factors that influences the proprietors to invest in them is the National Health Insurance system.

8.4 A SUMMARY OF WHAT WAS DONE

This research involved examining the characteristics of existing nursing home patients by using Andersen's model (see chapter 3) and by exploring the perceptions and decision making of elderly people and their families about nursing home entry. In addition, information about nursing homes in Taiwan and their proprietors' view towards the nursing home industry were investigated to examine possible factors that influence the supply of this form of care.

The field work took place between February and September, 1998. On the supply side, a survey was carried out of all registered nursing homes in Taiwan and then interviews with a sample of 12 proprietors. They were asked what made them go into this form of provision. Other factors such as the effect of financial regimes and the lack of legislation and regulations to set standards was also examined. Government documents which were relevant to long-term care had also been searched in order to understand the current background information and policy of long-term care in Taiwan.

On the demand side, a sample of patients and families of the patients (230 interviews) in the nursing homes were chosen for investigation. Their physical and mental state were assessed by the help of nurses. The elderly patients were then interviewed and asked about the process of entry, whose idea it was, what their reactions were...etc.. Where they could identify a family member they too were interviewed. For those patients who were confused or were unable to communicate,

their families were invited to take part as proxies and to give information about the patients as well as their own role in the decision making process. The data on the elderly people (Questionnaire part A) was also compared with a national sample of elderly people in the community.

8.5 A DISCUSSION OF THE MAIN FINDINGS AND LESSONS LEARNED FROM THE LITERATURE

This research started with a search of the relevant literature. This was mainly from the USA and the UK which are the two leading countries in terms of long-term care. A discussion of the main findings and lessons learned from the different bodies of literature in the initial chapters is now summarized.

First of all, the theoretical concepts used in the research should be discussed. Warshay (1975) defined the term of 'conceptual empiricism' as "the use of concepts rather than explicit theory as either the focus or outcome of research" (p. 10, cited in Bryman, 1988, p.22) in which he highlighted how the quantitative researcher tends to be concerned to relate the concepts to one another in order to investigate associations and to tease out causal processes. When this research, mainly quantitative, was designed, the possible theory base which could be best linked with this empirical research was searched. In terms of theories of ageing, the theoretical concepts of this research, the author believes, is mainly inherited from the political economy perspective of ageing. This emphasizes that elderly people are firmly structural dependent within the allocation of resources in society. The notion of structural dependency denotes a dependent status which has arisen because of limited access to resources (Bond et al., 1993, see chapter 3). In the empirical research, it was clear that the older people were in this dependent situation. For example, very few had a pension.

In the literature, the demand and supply theory which illustrated the interacting behaviors between the consumers and providers in a market place had been widely used to examine factors influencing care utilization. Most importantly, it matched with the political economy perspective of ageing and the idea of exploring factors influencing the demand and supply of nursing home care in the research. Thus,

demand and supply was decided as a basic structure in linking with the empirical research framework.

The literature shows that in the health and social care market, the objectives of efficiency and equity in terms of a free market are unlikely to be achieved. Therefore, the government interventions designed to overcome the market failure through the provision, regulation and/or subsidies are inevitable (Le Grand et al., 1992). However, under the current position of a care market in Taiwan, there is strictly speaking no third party involvement in long term care and the government's influence remains minimal. People seek nursing home care through private payments and the providers did not discriminate towards consumers either because of financial reasons or dependency except for some extreme cases (mentioned in chapter 5). In other words, the consumer's true demand was reflected at this stage. These factors combined with the evidence obtained from the literature further built up confidence that the concept derived from the demand and supply theory is applicable in this research.

Second, the policy context and the relevant literature from the USA and the UK give important lessons for the development of this research in Taiwan. As mentioned in chapter 2, there are three different ideal types of state/family responsibility balance in long term care (Jamieson, 1991). The USA and the UK where the main literature was derived from in the study represent two different types respectively. The market theory in the USA gives lessons about the importance of cost-effectiveness in a complex welfare mix market (i.e., the government has intervened less, the market does not meet important social goals...etc.). It also shows how its financial mechanism in between would operate and orient the utilization in long-term care. The UK model, where financial resources of long-term care are mainly based on the taxes, shows how the balance of care between the public and the private sectors could have implications for the provision of long-term care. It also shows how important it is to strike a balance between the state and the family within the allocation of limited resources. With regard to Taiwan, the government is likely to keep its residual role on social welfare (see chapter 1), partly due to the traditional view towards family responsibility and also because of the fiscal factors in which the national defense competes for a major part of the budget.

Reflecting back, it is possible to summarize the main findings from the previous literature in terms of the lessons which helped with the background to the empirical research and also to the interpretation of the results:

1. There were two aspects of policy development which informed the research. First were policy developments about long-term care in the UK and USA. This included helpful discussions and debates about community care. They provided a framework in which to scrutinize the developments of long-term care in Taiwan. Second were key government documents and research from Taiwan itself about long-term care which helped an understanding of the issue.
2. Of key importance from the literature were theories and policies about demand and supply. These were well discussed and documented in the literature and were crucial in relating them to demand and supply of long term care in Taiwan. Among these, some focused particularly on the factors influencing demand for care (including demographic factors, dependency levels, social factors, financial factors and the changing reimbursement policy and political power) and some the supply of care (e.g., the numbers and varieties of long-term care resources available, alternative care resources, policies and economic factors) which gave important ideas and a source of references in examining the supply and demand of nursing home care in this research.
3. Another important finding from the literature was previous research focusing on the risk of institutionalization from the epidemiological point of view. This provides a systematic way to analyze the possible risk factors for institutionalization from the client-related aspects. Within this, Andersen's model was used in a number of epidemiological studies to predict health care use. This provides a way of systematically examining nursing home use at the individual level through predisposing, enabling and need components in this research.
4. Gerontological literature played a vital role in building up the section of decision-making process in the research. It enhanced the idea of further exploration on the risk factors for admission through in-depth interviews. In the literature, decision making is analyzed from different care-related aspects such as the patients, the families and the professionals. These include illustrations of the role of elderly people and the professionals. Particularly important is the

emphasis on how important a role the families played in the process and also how the factors in the family context (such as the intergenerational relations, family functions...etc.) would influence families' ability to care.

In brief, lessons learned from the relevant literature have important implications for the empirical research in the light of the theoretical concepts, the policy context and various new ideas on long-term care and its resources. However, because of the different backgrounds of each country in terms of their political, social and economical ideology and different care environments and systems, these models can give useful lessons but may not always be able to be applied directly. A discussion of the main findings in terms of the factors found on the supply and demand side in this research now follows.

8.6 A DISCUSSION OF THE MAIN FINDINGS OF THE EMPIRICAL RESEARCH

8.6.1 Supply side

Factors on the supply side would both influence the demand and supply of long term care. The availability of nursing homes has been one of the most important factors which has also influenced demand. The extent to which elderly people express their need for nursing home care is partly governed by knowledge that services actually exist (i.e., available) and are accessible. As previous research has shown (Branch and Jette, 1982; Cohen, et al., 1988; Jette, et al., 1992; 1995; Salvage, 1995), the joint influence of risk factors, level of current home care support, supply of different kinds of the institutional services, and political and economic factors all play important roles in the clients' risk of institutionalization. As McCullough and Wilson (1995) have also indicated, the "microlevel" of decision making about long-term care is affected by "macrolevel" considerations of public policy and of institutional practice and policy.

As mentioned in the literature review, the government's policies on social welfare play a vital role which would orient the developments of long-term care in that country. In Taiwan, currently, expenditure on social welfare is only 20.6% of the government's total expenditure in 1997 (MOI, 1998). It is clear that the Taiwan

government has adopted a relatively passive strategy over intervening in families' economical well-being. The notion is that the burden of an ageing population would be shared by the government and the family. Because the traditional view of welfare for elderly people, the welfare mix (i.e., shared by the government and the family) fits with Confucian view of ethics (Kwon, 1999). In terms of long-term care, establishing a comprehensive long term-care system has been adopted by the Taiwan government which launched its 15-year long-term care plan in 1995. The target is to set up a comprehensive long-term care system within 15 years (from 1995 to 2010), while within the short term a three-year plan (from July, 1998 to June, 2001) has been set up. This includes establishing an integrated long-term care service network; establishing nation wide institutional care facilities; expanding community care facilities; enhancing the training of long-term care professionals; increasing the quality of care in the long-term care system; increasing understanding of long-term care by the public and developing financial support on long-term care (see Chapter 5) (DOH, 1998).

In terms of financing long-term care, nursing homes in Taiwan are categorized as health care facilities under the supervision of DOH. Improving its capacity (i.e., expanding the numbers of nursing homes) would be likely to impact favorably on the hospital use rate of this population. It was estimated that at least 5% of patients who need long-term care were currently living in hospitals (Chao, 1993; Yen et al., 1996). However, learning from the experiences of Western countries, it is often the reimbursement policy rather than need, which drives provision (Barley, 1991). Thus the needs of frail elderly people may not be adequately met, and the costs of financing long-term care continually increase (Barley, 1991). Some research has indicated that an insurance-funded care market might also drive down the voluntary supply of informal and family care as people sought to call on their government rather than relatives who might be no longer seen as the only option (Baldock, 1997; McGlone and Cronin, 1994). Charges to the individuals can also cause problems. Sinclair et al. (1990) indicated that "the imposition of charges could distort demand, deterring the poor who need home help from applying for it and deflecting services to somewhat richer pensioners who need them less" (pp.56). The funding issue is, therefore, difficult and crucially important. It is at national level a political problem and also a problem which involves making judgement about such variables as future

population size and demographic factors (ex. life expectancy; age composition), changes in dependency rates, changes in the cost of services, the potential resource of informal caregiving and the estimates of the future growth of economy (Baldock, 1997).

In addition, Caplan (1990) pointed out that the case for rationing with respect to health care services has not been persuasively established. "To some extent, inefficiencies in the provision of care account for the extraordinary increase in health care costs in the developed countries" (Caplan, 1990, pp. 679). He emphasized that in all nations, too little emphasis has been placed on assessing the outcomes of health care interventions in order to assure that there are benefits associated with the investment of resources in all manner of interventions. For example, the Royal Commission, UK (1999) reported that there is more concern about restricting access to services and controlling the resources rather than with providing a means of delivering appropriate and relevant services geared to individual needs (The Royal Commission Report, 1999, Vol. 3).

With regard to Taiwan, which is just launching her long-term care system and adjusting her social policy accordingly, it could be a good starting point to envisage a thorough long-term care plan to ensure that this is based on elderly people's needs and preferences. One thing that needs to be borne in mind is that in terms of social welfare, it is always easier to make a commitment to provision rather than the much more difficult decision to take away services. Promises should only be made after thorough planning. How to provide what elderly people need both in the current and future generations within the allocation of social resources is influenced by our view of old age. It is a function not only of biology, but of the social, economic, and cultural climates in which we live (Caplan, 1990).

As previously noted, government policy toward long-term care can also play a very important role and influence the supply. Through government interventions (i.e., legislation, regulation and supervision), both the amount and standards of provision will be influenced. This combined with the reimbursement policy will influence the providers and have an effect on the long-term care market. For example, freestanding nursing homes in Taiwan have already felt pressure when the government subsidization scheme was set up to give preference to the public sector. Therefore, there are fundamental questions about how government policies will

develop. Their role in policies on institutional care, especially nursing homes in terms of the balance between public and private sectors needs to be thought through. There is also need for public debate about the extent of public provision and intervention. In addition, if the family responsibility is emphasized and community care is a priority, what will be the government's alternative investment policies to institutional care? The nursing home proprietors are a group of people who are partly dependent on these policies. Until the government policies toward long-term care have been clarified, all kinds of decisions are being taken by them to stay in the industry or seek alternative investments which have an effect on total provision. For elderly people, it may lead to uncertainty about how much and what kinds of provision will be available.

8.6.2 Demand side

On the demand side, the risk of institutionalization in this research was examined by comparing a sample of elderly people in nursing homes with those in the community. It was found in the multivariate analysis, that difficulty in ADLs and certain diseases such as cardiovascular disease, neurological disease and skeletal muscular disease together with the socio-demographic characteristics such as advanced age, gender, educational level had a significant influence on nursing home admission. Need factors, especially the use of life sustaining measures such as nasogastric tube insertion, endotracheal tube insertion …etc. were key factors from the families' point of view in the decision making process that for these frail patients, no alternative other than nursing home entry was possible. It shows that need factors appear to be the most important variables in predicting the utilization of nursing home care when the three variables (predisposing, enabling and need variables) were tested in Andersen's model. This result is consistent with most of the previous research in Western countries (see Table 3-1) and confirms the research hypothesis that elderly people living in institutions have a high-risk profile and have a greater need for nursing home care than those living in the community. Admittedly, health status is far harder to measure and estimate than are demographic and enabling factors such as financial means and educational levels. However, this result suggests that exploring the risk factors and formulating a predictive model for nursing home

services for elderly people in Taiwan is worthwhile though hard work. It certainly makes it easier for policy makers to predict the amount of services that are likely to be demanded.

It is, however, also important to remember that people with similar levels of dependency may receive different form of care for reasons other than those just discussed. Other predisposing and enabling factors also have an active influence. As Laczko and Victor (1992) have pointed out, the factors which govern the choice people make to enter institutional care or receive community care are complex. The level of disability is only one of a number of factors influencing the choice of elderly people and/or their families. It should be also remembered that some people (including elderly people and their families) might prefer one form of care to another and that continuity of care is often another important consideration. A successful targeting strategy for long-term care has to bear in mind that high-risk profiles have relevance and utility for a variety of consumers (Jette, 1992). In addition, while learning from other countries' experiences about long-term care, cross-national differences in risk factors may reflect the impact of advocacy and affluence on access, as well as differences in the countries' long-term care systems (Kane and Kane, 1985).

The decision-making process in long-term care could benefit from more empirical research. Factors that influence decision making need to be identified, including institutional aspects and values, personal factors, as well as resident-related characteristics (Schneider and Kropf, 1996). In this study through the interviews, the perceptions of elderly patients and their families in the decision making process about nursing home admission have been explored for the first time in Taiwan. It was found that the main reasons for their decisions were "no carer is available", "excessive burden of caring for a vulnerable patient at home" and "increasing frailty of the elderly people". These reasons combined with other factors such as the carer's view toward institutional care and the family's ability to pay also influenced the families' view about other alternatives than nursing home entry. Therefore, for elderly people, burden is often applied in two senses, just as Warnes (1993) indicated, "for the fiscal load of income support and health and social care costs, and for notions and scales of caregiving effort and stress" (pp. 297).

In general, the elderly people often feared the loss of personal control over their lives or the prospect of placement in an institutional setting (Caplan, 1990). In Taiwan, the care of elderly people is seen as primarily a matter of family responsibility from both the perceptions of individuals and the government. Elderly people rely on their families in old age and these norms of responsibility and respect are strongly enunciated and written into the law of the country (the Senior Citizen Welfare Law, Taiwan, 1997). The notion that children have an obligation to assist parents and other relatives is a widely accepted and internalized value among all generations and is a legal requirement. However, some frail elderly people with certain level of high dependency would need nursing home care inevitably partly due to the proliferation of chronic disease among elderly people and also the push factor of the reimbursement policy in hospitals mentioned previously. When they are not allowed to stay in hospital long term or could no longer cope in their own homes, surprisingly, Taiwanese preferred to seek the medical model of care such as the hospital-based nursing homes. This may be explained by their traditional view that conceptually, people still could not understand fully and accept that why personal care or living care should be provided by someone outside the family network let alone an institution. The medical factors seemed to be the most important reasons for them to seek care and the hospital-based homes were a model that was perceived more reliable, safer in terms of medical care and more familiar.

In this research, the family seemed less able to cope with a frail older person who had orientation problems in the community (see Table 6-22b*). However, the tension between the medical and social factors influenced their views in the decision making. From the families' point of view, physical disability remained as the most important reason/excuse that they can accept for institutionalizing their elder relatives. Families gave reasons in terms of how and why the admission was inevitable. They tended to convince people that the admission was a last resort but still caused them anxiety. This fact was also evident from the frequent visits of the family to the nursing home. Because they were afraid of being labeled as people who abandoned their elders, the feelings of pressure and worry still existed after admission. Sometimes, the tension also came from other relatives in the family network such as the siblings of the older person who was institutionalized.

This situation also infers an ethical issue in the decision-making for nursing home entry. Elderly people in Taiwan, in general, were respected by their offspring and family pressure to keep families living together or nearby was still strong. Elderly people's needs were traditionally supported by their offspring and the traditional concept of filial piety also persuaded them to rely on their adult children when they came into old age. Most elderly people in this generation, however, had only minimum levels of education and also few financial resources. These combined with their lack of information and knowledge about long-term care, in fact, limited their role in exercising choices and control. It was found that in many cases, their families made decisions on their behalf. The power of making a decision that they had in the past, thus, had been usually shifted to their adult sons who earned most of the family income. In order to avoid the possible conflicts when no other choice was available and institutionalization was inevitable, the families often used various ways to coax their elders into nursing homes. This was also the reason why some elderly people thought the admissions were temporary although the families knew those could be permanent (as illustrated in chapter 7).

Another concept which might play an important role is the "Elderly people living into too great an old age are regarded as thieves of the society" in Confucian's ethics. It seemed that the disengagement theory of ageing was also reflected in Confucian's ethics towards old age. When people came into old age, they tended to avoid causing too much burden to their offspring and usually showed acquiescence towards their future. Therefore, an ethical dilemma towards institutionalization existed but mostly seemed hidden below the surface. However, the situation was also different among different families. In the research, it was found that some elderly people who had no children to rely upon or who had higher education levels and/or financial means had a more active role in the decision making. In fact, just as Fiveash (1998) stated, individuals' control over their health is essential especially when lifestyle changes are required to bring about an improvement in health. Referring back to the literature review, this also indicated that under a dynamic changing society, the characteristics of the new generations could influence their views towards old age.

According to Finch and Mason (1990), most people assent at the normative level to the idea of filial obligations (i.e., that adult children are obligated to their

parents) but there exist differences between countries. The study of Legge and Westbrook (1993) in six Australian communities showed that the Chinese, Italian and Greek samples considered that the family had a greater responsibility for the care of the aged than did the Anglo groups. The study of McGlone and Cronin (1994) indicated that people in the European Union felt a decline in inter-generational solidarity and the possible explanation for these differences is that "economic change has overtaken social change in those countries undergoing rapid economic development" (pp. 31). Changing attitudes towards care in families could be due to various reasons. For example, changing care preferences could be due to the increasing service availability and well established welfare states as mentioned above. In addition, in modern societies the family may become more dispersed, although contact will still be maintained by modern means of transport and communication (McGlone and Cronin, 1994). In the UK, Finch and Mason (1993) found that people are more likely to endorse family responsibility only when the need is fairly limited. In Taiwan, hardly any research about family solidarity has been conducted. It was found that only one piece of research about reciprocity had taken place. This was by Wu (1997). She found that the odds of being admitted into a nursing home was lower for those elderly people who provided instrumental assistance to their families before they were disabled. The author's research found that nursing home entry was a last resort after many other alternatives had been searched or tried. This may be partly explained by a sense of filial obligation which is founded on the relationships between parents and children. As Kwon (1999) indicated in his study, "the importance of children as the main income source for the elderly has been weakened" (pp. 20) in East Asia due to a variety of reasons. What motivates the filial responsibility of adult children to their parents certainly needs to be further researched in Taiwan. This is because the relationship obligation and moral beliefs were, in fact, the most frequently mentioned obligatory reasons for caregiving (Blieszner and Hamon, 1992; Cantor and Hirshorn, 1989). Families with elderly people in the nursing homes continued to have involvement in caring for their elderly relatives and generally expressed their anxiety and stress about the entry. The need for proactive planning with respect to decisions to enter care is well documented (Allen et al., 1992; Hunter, 1993; Nolan et al, 1996; Rodgers, 1997). It appears that ideally, a proactive planning for an elder's needs should take place before crises with

input from the professionals as well as the elderly people and their families (Dellasega and Mastrian, 1995).

Under the circumstances of contemporary social change such as the diminishing numbers of children, more women entering the work force and a view that there are limits on family responsibility (Finch and Mason, 1990; Caplan, 1990), Caplan (1990) raises a number of issues. He argues that there has not been much discussion about the limits of responsibility for family members nor the ways in which the personal habits and customs of elderly people must change in response to changing circumstances. Policy makers could not assume that there is some set of fixed moral rules that families will automatically support older dependent relatives. Instead, Finch and Mason (1993) argued that family care is not automatic, but must be negotiated over time. These negotiations take place between 'real people' who have a history of interpersonal relationships going back many years. Informal carers and families are actually experiencing changes due to both demographic and social changes and this must be accounted for in future policy. The ability to strike a balance between personal choice and social requirements is an ethical issue that touches the lives of elderly people, families, and health care providers in an ongoing and pervasive manner. To accept the inevitability of the life cycle---"Birth, Aging, Illness and Death" is the typical Chinese philosophy towards life. The goal is "to be born perfectly, to age slowly, to be ill but moderately and to die quickly" (Chow, 1997, pp. 41). As Caplan (1990) has indicated, the proper aim of medicine is not to strive for the attainment of immortality, but rather to develop interventions and techniques that can enhance the quality of life across the lifespan. Views about fairness and equity concerning the allocation of medical resources are very much a function of our views concerning the desirability of living to an old age. It is important to examine the way in which our existing health care system can afford to provide care that allows the possibility of extended life and permits people to exercise self-determination and autonomous behavior with respect to their care (Caplan, 1990).

8.7 SOME IMPLICATIONS

Some of the key lessons from the literature have already been referred to. There are implications from the empirical research. In this research, through showing the high-risk profiles of nursing home patients, the findings have a number of implications especially for the development of long-term care in Taiwan as follows:

- First, for the consumers, the identification of risk profiles that are highly predictive of subsequent long-term care institutionalization highlights the type of information that elderly people and their families need to have when estimating future personal risk of nursing home use.
- Second, for the policy makers and professionals, it is helpful to identify and target the number and type of older people likely to need long-term care institutional services, especially nursing home care.
- Third, for the purpose of financing long-term care, accurate forecasting is essential to introduce successful long-term care finance products either through public funding or private insurance schemes in the future (Jette et al., 1992).

Overall, risk profiles for nursing home admission are very useful for projecting further demand for nursing home care, developing interventions to prevent the risk of institutionalization and designing other alternatives to it.

In the meantime, in the research, some implications from Taiwan for the Western countries could be also worth mentioning. As stated earlier, the attitudes towards elderly people inherited from Confucian's ethics such as the views towards 'Life, Ageing, Illness and Death' and of a welfare mix—care should be shared between the government and the family may provide a way to perceive old age from alternative angles. They may not be right or applicable but could be interesting and helpful. Another implication relating to community development is worth noting. The government policy to encourage family members from different generations to live together or nearby is clearly helpful for mutual support. Volunteer service programmes can also be helpful as they seem to add to informal care resources in the community.

8.8 A CRITIQUE OF THE METHOD

In this research, some limitations of the method should be addressed.

Firstly, it is acknowledged in the research methods that the inclination to emphasize *process* is in part a product of the qualitative research (Bryman, 1988). A quantitative method was chosen both on the risk of institutionalization and in the decision-making process on the demand side for the following reasons:

1) Cultural reason: in Taiwan, the usual passive role of people in expressing their opinions makes probing in the qualitative method difficult and could be less efficient. Some elderly patients in the nursing home just sat there silently unless a little conversation was oriented by the interviewer who then interviewed them question by question.
2) This research followed the epidemiological view on the risk of institutionalization on the demand side. The purpose was to define the possible risk factors for demanding nursing home care by presenting a picture of the nursing home profile. In the decision-making process, systematically, it was hoped that this research could cover as many respondents as possible and the data collated could also be generalized to a wider population. Therefore, it was decided to use structured questionnaires which allow each dimension to be captured in its totality and which made sense of the statistical techniques by random sampling.

In the decision-making process, therefore, the research has been limited on defining the possible risk factors derived from previous research rather than exploring other new factors among this group of older people.

Secondly, Andersen's model had been used in this research systematically to define the possible risk factors for institutionalization. As mentioned in chapter 3, it was originally designed for the health care utilization to examine the risk factors on the individual level (i.e., care users themselves) through the predisposing, enabling and illness components. Since it does not include a level of the factors which generated from the carers and/or families, this research, by using Andersen's model, could not examine the caregiving factors effectively. In order to compensate for this weakness, the interviews with the patients and their carers/families in the decision making process were conducted in order to explore the nursing home entry from

both the families and the patients' point of view.

Thirdly, regarding the questionnaire design, the limitations of the validity and the reliability check need to be further noted. The issue of *reliability* is concerned with the consistency of a measure. In this research, it had been checked by using the Cronbach's alpha for its internal consistency. For the questionnaires' consistency over time, test-retest and inter-rater (the author is the only interviewer in this study) reliability had been checked within a small group of patients and families in the pilot study (see chapter 4). In terms of the validity issue, when the questionnaires were developed, some informal conversations with patients and families were conducted in order to assure the extent to which they understood the questions and the appropriateness of the wordings. Another problem which may be caused by the scales' translation such as the JUSSR and ADLs tests was carefully avoided by using either the same scale of ADLs (exactly the same wording as in the nationally validated community study SSRSC) or in the JUSSR sheets, questions were supplemented with the original English version (N.B. Most nurses were able to read English). However, because the validity testing is highly time consuming it can easily turn into a major project in itself (Bryman, 1988). In this research, the structured questionnaires had been double checked for the content validity and face validity with the help of experts in order to ascertain the degree of fit for its purpose.

Fourthly, in terms of the data collection methods, all the nursing home patients who were able to and consented to be interviewed were. This is different from some cross-sectional studies which focused on the decision-making process of entering an institution by interviewing samples from those had admitted less than one year in order to avoid the difficulty of recall memory (Reinardy, 1992; Phillips, 1992; Johnson et al, 1994). The consideration of this study was as follows: first, the pattern of patients' length of stay in nursing homes was, in general, shorter than in residential homes. For example, the Joseph Rowntree Foundation Inquiry, UK (1996) indicated that "In nursing homes, a quarter of elderly people stayed for less than 3 months, a quarter between 3 to 12 months, and a quarter between 1 to 2 years. In residential homes, the distribution of length of stay was much wider, with a quarter staying between 2 to 4 years and a quarter staying over 4 years, including 5% who had been residents for more than 10 years" (pp. 13). Second, it was found from the pilot study that because the short history of nursing homes in Taiwan, more than half of the

nursing home patients stayed there less than one year and some of them went in and out frequently depending on their carers' availability. Third, it was thought that the reasons for nursing home admission among patients with different length of stays might be varied (i.e., short stayers and long stayers, see chapter 4.2). In Taiwan, because no previous research had taken place on the decision making process of nursing home entry, it was decided to include all the patients in this study. Future research may focus more on details (e.g., applicants for institutionalization, admitted less than 3 months and less than one year) when information about nursing home patients is more available or can be followed up by a longitudinal research.

Attention should also be drawn to the data analysis, especially for the open-ended questions. Because this research is mainly quantitative as noted above, some open-ended questions were asked to give extra richness to the data. A brief note was undertaken right after each interview in order to link the key components of each story. In addition, in each interview, the questions had been repeated by the interviewer (the researcher) in order to make sure the respondent's answers. In terms of analyzing qualitative data, although a computer package was not used, data were systematically categorized by hand and put into categories. A final category list was derived from these open-ended questions by comparing and merging the categories over time to confirm their fits.

Furthermore, in this research, there were ethical issues. Those to do with decision making were addressed earlier in this chapter but there were also those to do with the methodology of the empirical research. These relate specifically to obtaining information from the nursing homes and those to do with the interviews with the patients and their families. On the first point, access to information on elderly people and their families was very difficult because some proprietors tended to protect the privacy of their patients. Their explanation was that confidentiality should be emphasized because of the sensitivity of this matter which might damage the relationship between the homes and the families. Indeed in two homes the proprietors refused to release the information (e.g., the families' addresses and telephone numbers) for these reasons. It was decided for those homes that participated the basic information about each patient in the registered nursing homes should be provided anonymously (i.e., without the patients' names). On the second point, interviews with patients and their families raised ethical issues of consent.

Both patients and families were sent letters to notify them about this research and to enlist their cooperation (as mentioned in chapter 4). They were told that the information was in confidence, that it would be anonymised and that they were under no obligation to participate. This ethical implication also increased the difficulty in collecting data by personal interviews. Because the aim was to investigate as many respondents as possible as noted above, 25 postal questionnaires had also been sent out when the carers/key families were willing to give information but could not arrange a time for interviews. Among them, 20 were completed and sent back (the response rate 80%). In this research, these questionnaires collected by mail were jointly analyzed with other questionnaires after considering of the pros and cons in terms of combining different interviewing methods (see Fowler, 1993).

Finally, some other factors which would restrict the findings and the interpretation of the results were also worth noting. As mentioned earlier, the potential risk factors for demanding nursing home care can also include the 'macro-level' variables such as the availability of formal support services (other alternatives), the supply of nursing home beds, and the changing reimbursement policy (Liu et al., 1991; Jette et al., 1995; Salvage, 1995; McCullough and Wilson, 1995; Spector et al., 1996; Kincade et al., 1998). This study did not have the capacity to assess all these factors. Their absence may confound the relative effects of the personal factors which were investigated in this study. In terms of the factors which may influence the supply of nursing home services, only the government documents and a small sample of nursing home proprietors have been investigated in this study (see chapter 5). In addition, this research has focused on possible risk factors in the decision making process for nursing home entry. Cross-sectional design does not allow us to distinguish the effects of other risk factors that influence decisions to enter institutional care such as the impact of institutionalization itself, the act of moving or other unknown factors. Besides, SSRSC (1996), a secondary data, was used as the community data set to compare the elderly people in nursing homes and those in the community. Because it was not purposely designed and conducted at the same time, variables could only be compared when available and compatible. The factors which govern the decisions people make to enter a nursing home are complex and are made over a period of time involving different decision makers. Because this research was undertaken by one individual with limited financial resources, it was based on a very

small number of nursing homes and a small sample of elderly patients and their families. The profile might be different if a national survey is conducted which covers a variety of long-term care applicants. However, in Taiwan, the factors that influence decisions are, currently, relatively simple compared with Western countries. They are mainly within a family context. The results of this research are consistent---for the most part---with the findings of a number of studies in Western countries (see Chapter 6 and 7).

In summary, the research had been limited in terms of its method either because they were restricted to the area been studied, ethical implications or because of the data availability at the moment. The method used in this research may be, thus, not applicable in other areas or countries without modification.

8.9 FURTHER RESEARCH

Further research should be undertaken. Reflecting back to the limitations of the method, a comparison of the applicants to institutions rather than those who are there after admission would be useful. So would research on simultaneous data about both high-risk elderly applicants to institutions and a sample of elderly people in the community. However, to produce a clear-cut prediction of the use of services by the population appears to be difficult. Other research should explore the relative importance of certain other factors. For example, it could benefit from longitudinal research which could monitor the risk factors dynamically over a period of time. It could also benefit from qualitative approaches focusing on how families organize their response to the caregiving needs of elders (Pyke and Bengtson, 1996), issues about family responsibility/obligation or the intergenerational relations which look at the variables of family structure, association or patterns of contact, affect, social norms, consensus or similarity and exchange or power (Treas and Bengtson, 1987).

8.10 SOME CONCLUDING OBSERVATIONS

Nursing homes, one type of institution, are ideally for dependent frail people who constantly require more or less constant attention. However, in this research it was found that some people are currently admitted to nursing homes as emergencies

and nearly half of them admitted directly from hospitals without necessarily being assessed. A proper assessment system run by a multi-disciplinary team appears to be important. Nursing home placements should occur only after the full range of other alternatives have been explored and are in accord with people's wishes. Not only cost-effectiveness but the different circumstances, needs and wishes of individuals should be considered. A range of care settings provided by the public, private or voluntary sectors could include care at home, day care, very sheltered housing, residential care, nursing home care, continuing care beds in hospitals and acute services (The Royal Commission Report, 1999, Vol. 2). In Taiwan, these are all currently developing under the government's long-term care plan. What is needed is a tapestry of accessible provision from which people may choose and feel confident that their needs can be met (The Royal Commission Report, 1999, chapter 8).

Long term care represents a fundamental challenge to the traditional patient-centered ethic associated with acute-care medicine because a third party---the families are deeply involved (Arras, 1995). Previous research has found that most elderly people wish to retain their independence and autonomy and prefer to stay in their own homes (The Royal Commission Report, 1999, chapter 8, pp. 81). When they need care assistance, they also prefer to be helped in their own homes, through the provision of what is called "community care" (Baldock, 1997). Most of the families would want to provide the loving, individualizing and personal care to their family members (Arras, 1995). However, although home care can offer significant benefits to all concerned, it can also place extraordinary demands on carers. There are potentially conflicting interests everywhere in long-term care decision-making and for everyone, including physicians, nursing home administrators and loving family members (Arras, 1995). Arras (1995) has argued that those others who involved in long-term care such as professionals and family members, are people too, and must be treated with concern and respect. At the very least, the carers must not be forced to relinquish their legitimate claims to have a life apart from the demands of caregiving (Arras, 1995). He showed that when they fail to provide care, it is more likely to be due to the inadequacies of the health care "system" and social support rather than to any demonstrable conflict of interest.

Caring involves a complex mix of social and moral obligation. Many carers need more support. If the care of elderly people is seen as primarily a matter of

family responsibility and encouraged by the government, public policy needs to focus on making it easier for individuals to meet their obligations (Brakman, 1995). A family cannot function well as "a close circle of reciprocal obligations with no public institutions to support it" (Post, 1988, pp. 13). Many need additional, more responsive service provision and some financial recompense. Therefore, in the UK, the recent Royal Commission Report (1999) recommended that a national carer support package should be considered by the government (The Royal Commission Report, 1999, chapter 8, pp. 90). In the US, Jecker also emphasized the societal responsibility in the context of family ethics. He argued that "caregiving can stand for moral excellence only when society prevents caregiving from becoming an unwieldy and self-destructive hardship. Caregiving can fulfill moral duties only when society prevents caregiving from leading to unwise and unbearable demands" (Jecker, 1995, pp. 176). In this research, it was also found that carers had little adequate support either from the professionals or in the community. More efforts focused on carers' support ranging from carer's organizations to a better focus on their needs will be an important issue in long-term care in Taiwan.

Research findings show that formal care services play a relatively minor part in the support of disabled old people. In the UK, most elderly people are helped by their families and a minority even receive no help from either (Allen et al., 1992). The author's research also showed that most (90%) of the elderly people in Taiwan were cared for by their families in their own homes. These findings indicated that if public expenditure contributes mainly to institutional care, it is simply a small part of an overall system that is failing many people and appears to be unfair. Baldock (1997) argued that "domiciliary care" remains little understood in crucial aspects because the activities involved are so ordinary---getting up, washing, going shopping. However, it may be the most needed by the frail elderly people because they are 'people' who need or want help, often on a daily basis, "to do things they could not otherwise do but which are generally understood to be part of an ordinary life" (Baldock, 1997, pp.76). There is a natural tendency to assume that these are relatively uncomplicated businesses, whereas the research evidence shows that it is "intrinsically complex and often difficult to arrange and sustain" (Baldock, 1997, pp.76). Considering the people's needs and preferences, the future care of elderly people should not only focus on institutional care. Qureshi and Walker (1989)

warned that "There is a danger that, unless action is taken to ensure enlarged caring resources, the gap between the need for care on the part of the elderly people and the supply of both informal and formal care will widen" (pp. 7). It appears that "community care" should be even more devoted to by the government. Introducing innovative ways of meeting needs of elderly people within the community is needed in the future. It could be through new care environments encouraging independence, through domiciliary care and improved respite facilities keeping elderly people in their own homes. In tradition, Taiwan has a relatively solid family structure and elderly people who live alone comprise a small part in society. This is thought to be an advantage for "care in the community" if it could be made more successful.

As mentioned previously, long-term care is alternative in nature depending on its availability and accessibility. The dynamic process of needs for long term care is influenced not only by service availability, service accessibility but also by government intervention. The balance of care (public and private sectors) and the financial incentives (subsidization; charges) could also have important implications for the provision of long-term care in the future. Undoubtedly, the government policies about long-term care play an important leading role. What is the emphases in long-term care by the government? How much do the government's policies rely on institutional care and community care respectively? Setting up varied kinds of long-term care facilities at this pioneering stage is critical. However, it can be dangerous if a careful plan based on people's needs is not produced at the start. More precise guidelines should be provided by the government at the outset.

Furthermore, there is need for careful management of the care market in order to fulfill the strategy laid down by a particular government's policy (The Royal Commission Report, 1999, chapter 7). For example, following the government policy in Australia, the gradually decrease in the numbers of residential beds has been achieved by issuing fewer licenses for bed places and converting them to home care packages. In Denmark, the building of new residential homes was banned (The Royal Commission Report, 1999, chapter 7). This balance between different forms of care will require cooperation between Government, National Health Insurance, the regulators as well as the care providers. If long-term care is not well established and comprehensive, hospital discharge arrangements for elderly people would be only a sense of anxiety and uncertainty about the future. How best to strike an balance

between supply and demand of long-term care within the financial options needs to be subjected to guidance by the government helped by relevant research. Overall, elderly people's wishes should be respected and any alternative models of long-term care must be based upon notions of "fairness, accommodation, compromise, and negotiation" (Arras, 1995, pp. 203).

One can never experience old age until s/he is. Parker (1998) reminded that "It is people who deliver services irrespective of their settings—and that it is people who need the services" (pp. 58). The needs and wishes of today's and tomorrow's older population will also be varied and the provision of long-term care should respond to this accordingly (The Royal Commission Report, 1999, chapter 8). The issue is whether life can be made meaningful and useful by social arrangements that afford opportunities and real choices to all citizens regardless of age (Caplan, 1990). The primary ethical responsibility facing those concerned about the high cost of care for elderly people is to recognize that they are in the best position within our society to articulate their views about a meaningful and rich life. Our obligation is to assure that social policies are created which allow each person, old or young, to enjoy the opportunities and benefits of a high quality of life at all points in the lifespan. As Caplan stated (1990), we can not really know what is prudent or natural until we allow all people to have a fair opportunity to exercise self-determination sufficient to allow them to decide what it is that makes life worth living.

Bibliography

Age Concern Briefings: NHS responsibilities for continuing health care, and hospital discharge arrangements. Ref: 2895, LE/November 1995.

Agresti, A. (1990), *Categorical Data Analysis*, New York: John Wiley & Sons.

Allen, I., Hogg, D. and Peace, S. (1992), *Elderly People: Choice, Participation, and Satisfaction*, London: Policy Studies Institute.

Allsop, J. (1995), *Health Policy and the NHS: towards 2000* (2nd ed.), London: Longman.

American College of Physicians (1988), Financing long-term care, Ann Intern Med, Vol. 108, pp. 279-288. (cited in Weiner, J., 1994).

Andersen, R. and Newman, J. (1973), Societal and individual determinants of medical care utilization, Milbank Memorial Fund Quarterly, Vol.51, Winter, pp. 95-124.

Andersen, R., Kravits, J. and Anderson, O.W. eds. (1975), *Equity in Health Services: empirical analysis in social policy*, Cambridge, Massachusetts: Ballinger Publishing Company.

Anderson, R. T., James, K. J., Miller, M. E., Worley, A. S. and Longino, C. F. (1998), The Timing of Change: Patterns in Transitions in Functional Status Among Elderly Persons, Journal of Gerontology: Social Sciences, Vol. 53B, No. 1, pp. S17-S27.

Arber, S. and Ginn, J. (1991), Gender and Later Life. Sage, London.

Arling, G. and McAuley, W. J. (1983), The Feasibility of Public Payments for Family Caregiving, The Gerontologist, Vol. 23, pp. 300-306.

Arras, J. D. (1995), Conflicting interests in Long-Term Care Decision Making: Acknowledging, Dissolving, and Resolving Conflicts (chapter 10), in McCullough, L. B. and Wilson, N. L. (ed.): *Long-Term Care Decisions: Ethical and Conceptual Dimensions*, Baltimore and London: The Johns Hopkins University Press.

Association of Directors of Social Services (1994), Towards community care. Reviews of the first year. London: Association of Directors of Social Services.

Baldock, J. (1997), Social care in old age: more than a funding problem, Social Policy and Administration, Vol. 31, No. 1, pp. 73-89 (March).

Banaszak-Holl, J. et al. (1998), Organizational Characteristics Associated with Agency Position in Community Care Networks, Journal of Health and Social Behavior, Vol. 39 (December), pp. 368-385.

Barker, C. (1996), *The Health Care Policy Process*, Chapter 9, London: Sage

Barley, L. S. (1991), Total Long term Care : Denver, Colorado in Miller, J. A. , *Community-Based Long-Term Care: Innovative Models*, London: SAGE Publications.

Bartlett, H. (1993), *Nursing Homes for Elderly People: Questions of Quality and Policy*, UK: Harwood Academic Publishers.

Bass, D. M. and Noelker, L. S. (1987), The influence of family caregivers on elder's use of in-home services: an expanded conceptual framework, Journal of Health and Social Behavior, Vol. 28, No. 2, pp. 184-196.

Bauer, E. J. (1996), Transitions from Home to Nursing Home in a Capitated Long-Term Care Program: The Role of Individual Support Systems, Health Services Research, Vol. 31, N0. 3, August, 1996, pp. 309-326.

Begg, D., Fisher, S. and Dornbusch, R. (1994), *Economics*, McGraw Hill, pp.32-33.

Bell, J. (1996), Decision Making in Nursing Home Placement, Journal of Women & Aging, Vol. 8(1), pp. 45-60.

Blieszner, R. and Hamon, R. (1992), Filial responsibility: attitudes, motivators, and behaviors (chapter 7), in Dwyer, J. and Coward, R. (ed.): *Gender, Families, And Elder Care*, London: SAGE Publications.

Boaz, R. F. and Muller, C. F. (1994), Predicting the Risk of "Permanent" Nursing Home Residence: The Role of Community Help as Indicated by Family Helpers and Prior Living Arrangements, Health Services Research, Vol. 29, No. 4 (October), pp. 392-414.

Bond, J. (1993), Living Arrangements of Elderly People, in J. Bond, P. Coleman & S. Peace (ed.) *Ageing In Society*, London: Sage Publications.

Bond, J., Coleman, P. & Peace, S. (ed.) (1993), *Ageing In Society: an introduction to social gerontology* (2 eds.), London: Sage Publications.

Bond, S. and Bond, J. (1989), *Evaluation of continuing-care accommodation for elderly people*, Vol. 3, Newcastle upon Tyne: University of Newcastle upon Tyne, Health Care Research Unit.

Booth T., Barritt A., Berry S., Martin D., Melotte C. (1982a), A reliable assessment schedule for use in homes for the elderly. Social Work Service, Vol.29 (Mar), pp. 42-53.

Booth, T., Barritt, A., Berry, S., Martin, D.N., Melotte, C. and Stone, S.(1982b), Levels of dependency in local authority homes for the elderly, Journal of Epidemiology and Community Health, Vol. 36, pp. 53-57.

Booth, T. (1985), *Home truths: old people's homes and the outcome of care*, London, Gower.

Booth, T. and Phillips, D.(1987), Group living in homes for the elderly : a comparative study of the outcome of care, British Journal of Social Work, Vol.17(1), pp. 1-20.

Bowers, B. (1988), Family perceptions of care in a nursing home, The Gerontologist, Vol.28, No. 3, pp.361-368.

Bowling, A. (1997), *Measuring Health: A review of quality of life measurement scales*, second edition, Buckingham: Open University Press.

Bradshaw, J. (1972), A taxonomy of social need, in McLachan, G. (ed.): *Problems and Progress in Medical Care*, pp. 71-82, 7th series (Oxford, Oxford University Press).

Brakman, S. V. (1995), Filial Responsibility and Long-Term Care Decision Making (chapter 9), in McCullough, L. B. and Wilson, N. L. (ed.): *Long-Term Care Decisions: Ethical and Conceptual Dimensions*, Baltimore and London: The Johns Hopkins University Press.

Branch, L.G. (1992), Epidemiologic Methods for the Study of Health Service Use by older People in Wallace & Woolson (ed.): *The Epidemiologic Study of the Elderly*, Oxford, Oxford University Press. pp. 183-195.

Branch, L.G. and Jette, A. M. (1982), A prospective study of long-term care institutionalization among the aged, American Journal of Public Health, Vol. 72, pp. 1373-1379.

Brandriet, L. M. (1991), Decision Making Involvement Related to Acceptance of the Elderly to Nursing Home Placement, Clinical Gerontology, Vol. 11, No. 1, pp. 77-79.

Brock, A. M. and O'Sullivan, P. (1985), A study to determine what variables predict institutionalization of elderly people, Journal of Advanced Nursing, Vol. 10, pp. 533-537.

Brody, E. M. (1977), *Long-Term Care of Older People: a practical guide*, New York: Sciences Press.

Brody, E. M. (1985), Parent care as a normative family stress, The Gerontologist, Vol. 25, No. 1, pp. 19-29.

Brody, E. M., Hoffman, C., Kleban, M. H. and Schoonover, C. B. (1989), Caregiving daughters and their local siblings: Perceptions, strains, and interactions, The Gerontologist, Vol. 29, No. 4, pp. 529-538.

Brook, V. (1991), Meeting the Challenge: Involuntary Residents in the Nursing Home, The Journal of Long-Term Care Administration, Winter 1991-1992.

Bryman, A. (1988), *Quantity and Quality in Social Research*, London, Routledge.

Buckwalter, K. and Hall, G. (1987), Families of institutionalized older adults: a neglected resource. in Brubaker T. (ed.): *Aging, Health and Families: Long Term Care,* California : Sage, Newbury Park, pp. 176-196.

Burholt, V. (1998), Pathways Into Residential Care: service use, help and health prior to admission, Health Care in Later Life, Vol. 3, No. 1, pp. 15-22.

Caldock, K. & Nolan, M. (1994), Assessment and Community Care: Are the Reforms Working? Generations Review, Vol. 4, No. 4, pp. 2-4.

Cantor, M. H. and Hirshorn, B. (1989), Intergenerational Transfers Within the Family Context---Motivating Factors and Their Implications for Caregiving, Women in the Later Years: Policy Issues/Intergenerational Relations, pp.39-51, The Haworth Press.

Caplan, A. L. (1990), Ethical issues and the care of the elderly (chapter 42), in Kane, R. L., Evans, G. and Macfadyen, D. (ed.): *Improving the Health of Older People: A World View*, Oxford: Oxford University Press.

Carter, H., Gorman, D., Ramsay, D. and Turvey, T. (1992), The dependent elderly: a comparative survey of institutional care in Fife, Health Bulletin, Vol. 50, No. 6, pp. 433-440.

Caserta, M. S., Lund, D. A. and Wright, S. D. (1996), Exploring the Caregiver Burden Inventory (CBI): Future Evidence for a Multidimensional View of Burden, International Journal of Aging and Human Development, Vol. 43, No. 1, pp. 21-34.

Central Statistical Office (1996), Social Trends (UK), vol. 26, page 38-50.

Challis, D., Dartin, R., Johnson, L., Stone, M. and Treske, K. (1995), Care Management and Health Care of Older People: the Darlington Community Care Project, Arena, Aldershot (cited in The Royal Commission Report, Vol. 1).

Chang, C. F. (1998), Who'll Care for the Elderly? Sinorama, R.O.C, May, 1998, pp.16-18.

Chang, F. C., Hung, M. W. and Wu, S. L. (1995), The Cost and Effectiveness of Day Care Services, Public Health (Taiwan, R.O.C.), Vol. 22, No. 3, pp. 163-176.

Chang, Ming-Cheng and Ofstedal, M. B. (1991), Changing Attitudes toward Old-Age Support in

Taiwan: 1973-1985. Research Report, Population Studies Center, University of Michigan.

Chang, Y. H. , Lu, C. , Duh, Y. L. and Yin, J. C. (1987), A survey of the health care of the aged people in Taipei City. Chinese Medical Journal, 23: 57-74.

Chao, M. J. (1993), A study on long-term care demand for patients with prolonged hospitalization, Public Health, R.O.C., Vol. 20, pp. 255-264.

Chao (Yu), Y.M., Wu, K. S., Chen, S.G., Chen, Y.C., Chen, H.L. and Chao, D.N. (1992), A feasibility study of home care in a national health insurance system, Nursing Phenomena (Taiwan, R.O.C.), Vol. 2, No. 1, pp. 52-76.

Challis, L. and Bartlett, H. (1987), *Old and ill: private nursing homes for elderly people*, Age Concern England.

Chen, M.G., Wang, D. M. and Jun, Y. L. (1996), Living arrangements and health status of the elderly people in Taiwan, paper presented at Conference of Population Ageing and Long-Term Care, Association of China Population (Taipei), March, 1996.

Chenitz, C. (1983), Entry into a nursing home as status passage: A theory to guide nursing practice, Geriatric Nursing, Vol. 2, pp. 92-97.

Chiu, L., Shyu, W. C. and Chen, TR. J. (1997), A cost-effectiveness analysis of home care and community-based nursing homes for stroke patients and their families, Journal of Advanced Nursing, Vol. 26, pp. 872-878.

Chow, L. P. (1997), Care For The Elderly in Taiwan---"Making Them More Productive", The International Symposia on Cross Nation Approach to the Care of Elderly, 1997, Taiwan: The Legislation Yuan, R.O.C.: Health and Social Welfare Committee.

Cohen, M. A., Tell, E. J. and Wallack, S. S. (1986), Client-related risk factors of nursing home entry among elderly adults, Journal of Gerontology, Vol. 41, No. 6 , pp. 785-792.

Cohen, M. A., Tell. E. J., Wallack, S.S. (1988), The risk factors of nursing home entry among residents of six continuing care retirement communities, Journal of Gerontology, Vol. 43, No. ?, pp. S15-S21.

Cohen, C., Gold, D., Shulman, K., Wortley, J., McDonald, G., and Wargon, M. (1993), Factors determining the decision to institutionalize dementing individuals: a prospective study, The Gerontologist, Vol. 33, No. 6, pp. 714-720.

Coleman, P., Bond, J. and Peace, S. (1993), Ageing in the Twentieth Century, in J. Bond; P. Coleman & S. Peace (ed.): *Ageing and Society*, London: Sage Publications

Colerick, E. J. and George, L. K. (1986), Predictors of Institutionalization Among Caregivers of Patients With Alzheimer's Disease, Journal of the American Geriatrics Society, Vol.34, pp.493-498

Coughlin, T. A., McBride, T. D. and Liu, K. (1990), Determinants of transitory and permanent nursing home admission, Medical Care, Vol. 28, pp. 616-631.

Coulton, C. J., Dunkle, R. E., Goode, R. A. and MacKintosh, J. (1982), Discharge planning and decision making, Health and Social Work, National Association of Social Workers, Inc., pp. 253-261.

Coulton, C. J., Frost, A. K. (1982), Use of social and health services by the elderly, Journal of Health Social Behavior, Vol. 23, pp. 330-339.

Council for Economic Planning and Development, Executive Yuan, R.O.C., 1996.

Coward, R. T., Horne, C. and Peek, C. W. (1995), Predicting nursing home admissions among incontinent older adults: A comparison of residential differences across six years, The Gerontologist, Vol.35, pp. 732-743.

Coward, R. T., Netzer, J. K. and Mullens, R. A. (1996), Residential differences in the incidence of nursing home admissions rates: Comparisons across six years, Journal of Gerontology: Social Sciences, Vol. 51B, pp. S258-S267.

Cox, C. B. (1996), Discharge Planning For Dementia Patients: Factors Influencing Caregiver Decisions and Satisfaction, Health & Social Work, Vol. 21, No. 2, pp. 97-104, May.

Crimmins, E.M., Saito, Y. and Ingegneri, D. (1989), Changes in Life Expectancy & Disability-Free Life Expectancy in the United States, Population & Development Review, Vol. 15, No. 2, pp. 235-267.

Cuff, E. C., Sharrock, W. W. and Francis, D. W. (1992), *Perspectives In Sociology*, third edition, London: Routledge.

Cumming, E. and Henry, W. E. (1961), *Growing old: the process of disengagement*, New York: Basic Books (cited in Passuth and Bengtson, 1988).

Daatland, S. (1990), What are families for? On family solidarity and preference for help, Ageing and Society, Vol. 10, part 1, pp. 1-15.

Daatland, S. (1983), Use of public services for the aged and the role of the family, The Gerontologist, Vol. 23, No. 6, pp. 650-656.

Dai, Y. T., Shyu, Y. I., Hsiung, P. C. and Huang, J. M. (1992), An investigation of the environment of long-term care facilities in Taipei Area, Journal of Nursing, R.O.C., Vol. 39, No. 2, pp. 45-54.

Darton R. and Wright, K. (1992), Residential and Nursing homes for elderly people: one sector or two? in Laczko F. and Victor C. (ed.): *Social policy and elderly people*, Aldershot, Avebury.

Davies, B. (1988), Financing Long-Term Care: Challenges for the Nineties. Social Policy & Administration, Vol.22, No. 2, Summer.

Davies, B. P. and Baines, B. (1991), Attitudes to residential care and the subsequent probability of admission: analysis of a cohort of new recipients of community-based social services, Discussion Paper 780, PSSRU, University of Kent, UK.(cited in Warburton R.W., 1994)

Davies, B. P., and Challis, D. J. (1986), Matching Resources to Needs in Community Care. in PSSRU Studies in Social Care, Gower, Aldershot.

Day, P. and Klein, R. (1987), Quality of institutional care and the elderly: policy, issues and options, British Medical Journal, Vol. 294, pp. 384-387.

Dellasega, C. (1991), Caregiving stress among community caregivers for the elderly: Does institutionalization make a difference? Journal of Community Health Nursing, Vol. 8, No. 4, pp. 197-205.

Dellasega, C. and Mastrian, K. (1995), The Process and Consequences of Institutionalizing an Elder, Western Journal of Nursing Research, Vol. 17, No. 2, pp. 123-140.

Department of Health (1992), The health of elderly people: An epidemiological overview. Vol. 1. HMSO, London.

Department of Health (1992a), The health of elderly people. An epidemiological overview. HMSO, London.

Department of Health, Executive Yuan, R.O.C. (1995), Annual Report of Public Health in Republic of China, June 1995.

Department of Health, Executive Yuan, R.O.C. (1996), Annual Report of Public Health in Republic of China, June 1996.

Department of Health, Executive Yuan, R.O.C. (1997), Annual Report of Public Health in Republic of China, June 1997.

Department of Health, Executive Yuan, R.O.C. (1997), The second year report of National Health Insurance Program, Feb. 1997.

Department of Health, Executive Yuan, R.O.C. (1998), Annual Report of Public Health in Republic of China, June 1998.

Department of Health, Executive Yuan, R.O.C. (1999), world wide web (http://www.doh.gov.tw)

Department of Health and Social Security, UK (1989), *Caring for People, continuing care in the next decade and beyond*, London: HMSO.

Diemling, G. and Bass, D. (1986), Symptoms of mental impairment among adults and their effects on family caregivers, Journal of Gerontology, Vol. 41, pp.778-785 (cited in Cox, 1996).

Directorate-General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. (1995), *Social Indicators in Taiwan Area of the Republic of China*.

Directorate-General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. (1996), *Population Projection of Taiwan Area, R.O.C.*.

Directorate-General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. (1999), world wide web (http://www.dgbasey.gov.tw)

Dooghe, G. (1993), Demographic Aspects of Active Ageing in Europe, Paper at Active Ageing in the 21st Century Conference, Valletta, Malta, 13-16 December. (cited from Salvage, 1995)

Doty, P. (1986), Family care of the elderly: the role of public policy, The Milbank Quarterly, Vol. 64, No. 1, pp. 34-75.

Dowd, J. J. (1980), *Stratification Among The Aged*, Monterey, CA: Brooks/Cole Publishing Co. (cited in Bond et al., 1993).

Dwyer, J. and Coward, R. (eds.) (1992), *Gender, Families, And Elder Care*, London: SAGE Publications.

Edelman, P. and Hughes, S. (1990), The impact of community care on provision of informal care to housebound elderly persons, Journal of Gerontology, Vol. 45, pp. S74-S84 (cited in Weiner J., 1994).

England, M. (1996), Content Domain for Caregiver Planning Identified by Adult Offspring Caregivers, IMAGE: Journal of Nursing Scholarship, Vol. 28, No. 1, pp. 17-22, Spring.

Estes, C. L., Swan, J. H. and Associates (1993), The Long Term Care Crisis: Elders Trapped in the No-Care Zone. Newbury, CA: SAGE Publications.

Eurostat (1993a), Demographic Statistics 1993, Statistical Office of the European Communities, Luxembourg (cited in Salvage, 1995).

Eurostat (1993b), Rapid Report: Population & Social Conditions, Luxembourg (cited in Salvage,

1995).

Evers, A. (1992), Further Research in the Area of Collective Support Systems: Some Comments & Recommendations, Paper at Conference on Past, Current & Future Initiatives on Ageing, Economic & Social Research Council, London, 20-21 May (cited in Salvage, 1995).

Evandrou, M. (1996), Unpaid work, carers and health (Chapter 12), in Blane, D., Brunner, E., and Wilkinson, R. (ed.): *Health and Social Organization*, London: Routledge.

Evashwick, C., Rowe, G., Diehr, P. and Branch, L. (1984), Factors Explaining the Use of Health Care Services by the Elderly, Health Services Research, Vol. 19, No. 3, August, pp. 357-382.

Finch, J. (1989), Family Obligations & Social Change, Cambridge: Polity Press.

Finch, J. and Mason, J. (1993), *Negotiating Family Responsibilities*, London: Routledge.

Finch, J. and Mason, J. (1990), Filial obligations and kin support for elderly people, Ageing and Society, Vol. 10, No. 2, pp. 151-175 (June).

Fiveash, B. (1998), Client-managed Care, European Nurse, Vol. 3, No. 3, pp. 186-193.

Fletcher, P. (1991), The Future of Sheltered Housing-Who Cares? Policy report. National Federation of Housing Associations, London.

Fowler, F. J., Jr.(1993), *Survey research methods*, 2nd edition, London: SAGE.

Forrest, M. B., Forrest, C. B. and Forrest R. (1990), *Nursing homes: the complete guide*, Oxford: Facts On File Ltd.

Fox, M. and Lithwick, M. (1978), Group work with adult children of confused institutionalized patients, Journal of Long Term Care and Health Services Administration, pp. 121-131 (cited in Gonyea, 1987).

Freedman, R. A., Moots, B., Sun, T. H. and Weinberger, M. B. (1978), Household composition and extended kinship in Taiwan, Population Studies, Vol. 32, No. 1, pp. 65-80.

Freedman, V. A. (1993), Kin and nursing home lengths of stay: a backward recurrence time approach, Journal of Health and Social Behavior, Vol. 34 (June), pp. 138-152.

Freedman, V. A. (1996), Family Structure and the Risk of Nursing Home Admission, Journal of Gerontology: Social Sciences, Vol. 51B, No. 2, pp. S61-S69.

Freedman, V. A., Berkman, L. F., Rapp, S. R. and Ostfeld, A. M. (1994), Family Networks: Predictors of Nursing Home Entry, American Journal of Public Health, Vol. 84, pp. 843-845.

Fried, L. P., Guralnik, J. M. (1997), Disability in old adults: evidence regarding significance, etiology, and risk, Journal of American Geriatric Society, Vol. 45, pp. 92-100 (cited in Melzer et al., 1999).

Fries, B. E., Schineider, D. P., Foley, W. J., Gavazzi, M., Burke, R. and Cornelius, E. (1994), Refining a case-mix measure for nursing homes: resource utilization groups (RUG-III), Medical Care, Vol. 32, pp. 668-685.

Garrard, J., Buchanan, J. L., Ratner, E. R., Makris, L., Chan, H. C., Skay, C. and Kane, R. L. (1993), Differences Between Nursing Home Admissions and Residents, Journal of Gerontology: Social Sciences, Vol. 48, No. 6, pp. S301-S309.

Gertler, P. J. (1989), Subsidies, Quality, and the Regulation of Nursing Homes, Journal of Public

Economics, Vol. 38, pp.33-52.

Gesler, W. M., Robiner, D. J. and DeFriese, G. H. (ed.) (1998): *Rural Health and Aging Research: Theory, Methods and Practical Applications*, New York: Baywood Publishing Company.

Gibbs, I. and Corden, A. (1991), The Concept of 'Reasonableness' In Relation To Residential Care And Nursing Home Charges, Policy and Politics, Vol. 19, No. 2, pp. 119-129.

Given, B., Stommel, M., Collins, C., King, S. and Given, C. (1990), Responses of elderly spouse caregivers, Research in Nursing and Health, Vol. 13, pp. 77-87 (cited in Dellasega, 1991).

Glendinning, C. and McLaughlin, E. (1993), Paying for Care: Lessons from Europe, Social Security Advisory Committee, Research Paper 5, London, HMSO (cited in Salvage, 1995).

Gonyea, J.G. (1987), The Family and Dependency: Factors Associated With Institutional Decision-Making, Journal of Gerontological Social Work, No.10, pp. 61-77.

Gordon, G. K. (1985), The social readjustment value of becoming a nursing home resident, The Gerontologist, Vol. 25, No. 4, pp. 398-402.

Government Information Office, Executive Yuan, R.O.C. (1996), *The Republic Of China Yearbook 1996.*

Greenberg J. N. and Ginn, A. (1979), A Multivariate Analysis of the Predictors of Long-Term Care Placement, Home Health Care Services Quarterly, Vol. 1, No. 1 (Spring), pp. 75-99.

Greenberg, J. R., Monson, T., and Gesino, J. (1993), Development of University of Wisconsin Family Assessment Caregiver Scale (UW-FACS): A New Measure to Assess Families Caring for a Frail Elderly Member, Journal of Gerontological Social Work, Vol. 19(3/4), pp. 49-68.

Greene, V. L. and Ondrich, J. I. (1990), Risk factors for nursing home admissions and exits: A discrete-time hazard function approach, Journal of Gerontology: Social Sciences, Vol. 45, No. 6, pp. S250-S258.

Greenhalgh, S. (1982), Income units: The Ethnographic Alternative to Standardization. in Yoram Ben-Porath (ed.): *Income Distribution and the Family*, Supplement to Vol. 8 of Population and Distribution Review, pp. 70-91.

Grundy, E. (1992), Sociodemographic Change and the Elderly Population of England and Wales, Internat. Journ. of Geriatric Psychiatry 7: 75-82.

Grundy, E. and Glaser, K. (1997), Trends in, and transitions to, institutional residence among older people in England and Wales, 1971-91, Journal of Epidemiology and Community Health, Vol.51 (March), pp. 531-540.

Grundy, E. (1998), The Epidemiology of Ageing (chapter 1), Brocklehurst's Textbook of Geriatric Medicine and Gerontology, London: Churchill Livinstone.

Grunfeld, E., Glossop, R., McDowell, I., and Danbrook, C. (1997), Caring for elderly people at home: the consequences to caregivers, Canadian Medical Association Journal, Vol. 157, No. 8, (October), pp. 1101-1105.

Guralnik, J. M., Yanagishita, M. and Schneider, E. (1988), Projecting the Older Population of the United States: Lessons from the Past and Prospects for the Future, The Milbank Quarterly, Vol. 66, No. 2, pp. 283-308.

Gwyther, L. P. and Blazer, D. (1984), Family therapy and the dementia patient, American Family Physician, Vol. 29, pp. 149-156 (cited in Greenberg et al., 1993).

Hafner, H. (1986), Mental Health in Old Age, Gustav Fischer, Stuttgart, New York, (cited in Salvage, A. 1995).

Hancock, R. and Jarvis, C. (1994), *The Long Term Effects of Being A Carer*, London: HMSO.

Harding, T. and Phillips, J. (1996), Providing long-term care through the market---experience in the USA, Journal of Interprofessional Care, Vol. 10, No. 1.

Hardwick, P., Khan, B. and Langmead, J. (1994), *An introduction to Modern Economics*, Longman, pp.43-44.

Harrison, B. (1990), Economics, Longman, pp.45.

Havighurst, R. J. (1963), Successful aging, in Williams, R. H., Tibbitts, C. and Donahoe, W. (ed.): *Process of Aging*, Vol. 1, pp. 311-315, Chicago: University of Chicago Press (cited in Victor, 1987).

Hedrick, S. C., Koepsell, T. D. and Inui, T. (1989), Meta-analysis of home care effects on mortality and nursing home placement, Medical Care, Vol. 27, pp. 1015-1026.

Henwood, M. (1992), Through a Glass Darkly: Community Care and Elderly People. King's Fund Institute, Project Paper No. 14. King's Fund Centre, London.

Henwood, M. (1992), Through a glass darkly, Community care and elderly people, King's Fund Institute, London.

Hermalin, Albert I., Chang, Ming-Cheng, Lin, H. S. etc. (1990), Patterns of support among the elderly in Taiwan and their policy implications. Research Report, Population Studies Center, University of Michigan.

Hermalin, Albert I., Ofstedal, M. B., Chang, M. C. (1992), Types of support for the aged and their providers in Taiwan. Research Report, Population Studies Center, University of Michigan.

High, D. (1988), All in the family: extended autonomy and expectations in surrogate health care decision-making, The Gerontologist, Vol. 28 (Suppl.), pp. 46-52.

Hills, J. (ed.) (1990), *The State of Welfare: the Welfare State in Britain since 1974*, Oxford: Oxford University Press.

Hirschfield, M. J. and Fleishman, R. (1990), Nursing home care for the elderly. In Kane, R. L., Evans, J. G., MacFadyen, D. (ed.): *Improving the health of older people*, Oxford: Oxford University Press.

Holden, K., McBride, T. and Perozek, M. (1997), Expectations of Nursing Home Use in the Health and Retirement Study: The Role of Gender, Health, and Family Characteristics, Journal of Gerontology: Social Sciences, Vol. 52B, No. 5, pp. S240-S251.

Horwitz, A. V., Reinhard, S. C. and Howell-White, S. (1996), Caregiving as reciprocal exchange in families with seriously mentally ill members, Journal of Health and Social Behavior, Vol. 37 (June), pp. 149-162.

Hsieh, M. O. and Kagle, J. D. (1991), Understanding patient satisfaction and dissatisfaction with health care, Health and Social Work, 16, 4, Nov. pp. 281-290.

Hsieh, Y. N. and Tsai, S. L. (1996), Long-Term Care System in Taiwan, Journal of the Hospital Association, R.O.C., Vol.28, No.6, pp.60-74.

Hu, Y. H., Wang, S. S. and Kuo, S. C. (1995), Home Care for Disabled Elderly: An Integration of

Qualitative and Quantitative Research, Public Health, R.O.C., Vol.22, No.2, pp.99-113.

Hu, Y. H., Kuo, S. C. and Wang, S. S. (1996), Alternative Care Choices Regarding the Chronically Ill Elderly: Implicit Needs and Barriers, China Public Health (Taipei), Vol. 15, No. 4, pp. 275-288.

Huang, H. G., Wu. L. F., Chin, Y. and You, Y. H. (1997), A exploratory study of elderly people's self-care ability and care from their families, Developments in society (Quarterly) (R.O.C), Vol. 18, December, pp. 233-241.

Hudson, B. (1995), Nothing Ventured, Nothing Gained. Health Service Journal, Vol. 26, November 1995.

Hunter, S., Brace, S. and Buckley, G. (1993), The inter-disciplinary assessment of older people at entry into long-term institutional care: lessons for the new community care arrangements, Research, Policy and Planning, Vol. 11, No. 1/2, pp. 2-9.

Hurng, B. S., Ling, F. H., Hurng, M. W., Wu, S. L. and Huang, M. J. (1991), Community-based Physical and Needs Assessment for the Elderly, Public Health, Vol. 18, No. 3, pp. 212-236.

Ikegami, N. (1982), Institutionalized and the non-institutionalized elderly, Social Science Medicine, Vol. 16, pp. 2001-2008.

Impallomeni, M. and Starr, J. (1995), The Changing Face of Community and Institutional Care for the Elderly. Journal of Public Health Medicine, Vol. 17, No. 2, pp. 171-178.

Jamieson, A. (1991), Home Care for Older People in Europe: A Comparison of Policies & Practices, Oxford: Oxford University Press.

Janis, I. L. and Mann, L. (1977), Decision Making: a psychological analysis of conflict, choice, and commitment, New York: Free Press (cited in Gonyea, J.G.,1987).

Jecker, N. S. (1995), What Do Husbands and Wives Owe Each Other in Old Age? (chapter 8), in McCullough, L. B. and Wilson, N. L. (ed.): *Long-Term Care Decisions: Ethical and Conceptual Dimensions*, Baltimore and London: The Johns Hopkins University Press.

Jette, A. M., Branch, L. G., Sleeper, L. A., Feldman, H. and Sullivan, L. M. (1992), High Risk Profiles for Nursing Home Admission, The Gerontologist, Vol. 32, No. 5, pp. 634-640.

Jette, A. M., Tennstedt, S. and Crawford, S. (1995), How does formal and informal community care affect nursing home use? Journal of Gerontology: Social Sciences, Vol. 50B, No. 1, pp. S4-S12.

Johnson, B. A., Schwiebert, V. B. and Rosenmann, P. A. (1994), Factors Influencing Nursing Home Placement Decisions: The Older Adult's Perspective, Clinical Nursing Research, Vol. 3, No. 3, August, pp. 269-281.

Johnson, M. A., Morton, M. K. and Knox, S. M. (1992), The Transition to a Nursing Home: Meeting the Family's Needs, Geriatric Nursing--American Journal of Care for the Aging, Vol. 13, No. 6, pp. 299-302, Nov./Dec., 1992.

Jorm, A. F. (1990), *The Epidemiology of Alzheimer's Disease and Related Disorders*, London: Chapman and Hall.

Joseph Rowntree Foundation Inquiry (1996), *Meeting the costs of continuing care: report and recommendations*, York (UK): Joseph Rowntree Foundation.

Kane, R. A. & Kane, R. L. (1985), A will and a way: What the United States can learn from

Canada about care of the elderly, New York: Columbia University Press (cited in Jette et al., 1992).

Kane, R. A. & Kane, R. L. (1987), *Long-Term Care: Principles, Programs, and Policies*, New York: Springer.

Kane, R. L. (1995), Decision Making, Care Plans, and Life Plans in Long-Term Care: Can Case Mangers Take Account of Clients' Values and Preferences? (Chapter 5), in McCullough, L. B. and Wilson, N. L. (ed.): *Long-Term Care Decisions: Ethical and Conceptual Dimensions*, Baltimore and London: The Johns Hopkins University Press.

Kane, R. L., Evans, J. G. and Macfadyen, D. (1990), *Improving the Health of Older People: A world view*, Oxford: Oxford University Press.

Kane, R. L. & Matthias, R. (1984), From Hospital to Nursing Home: The Long-Term Care Connection, The Gerontologist, Vol. 24, No. 6, pp.604-609.

Katz, S., Branch, L. G., Branson, M. H., Papsidero, J. A., Beck, J. C., Greer, D. S. (1983), Active Life Expectancy, The New England Journal of Medicine, Vol.309, pp.1218-24.

Katz, S., Greer, D. S., Beck, J. C., Branch, L. G. and Spector, W. D. (1985), Active Life Expectancy: Social Implication, in Health in an Older Society, Washington, D. C.: Committee on an Aging Society, Institute of Medicine and National Research Council (cited in Boaz and Muller, 1994).

Kay, D. W. K. (1991), Psychiatry of Old Age. The epidemiology of dementia: a review of recent work. Reviews in Clinical Gerontology, Vol. 1, pp.55-66.

Kemper, P. (1988), The evaluation of the National Long Term Care Demonstration, 10: overview of the findings, Health Service Research, Vol. 23, pp. 161-174 (cited in Weiner J., 1994).

.

Kemper, P., and Murtaugh, C. M. (1991), Lifetime Use of Nursing Home Care, The New England Journal of Medicine, Vol.324, No.9, Feb. 28, 1991.

Kincade, J., Rabiner, D. J., Nelson, G. M. and Salmon, M. A. P. (1998), Informal Caregiving Networks and Community Resource Infrastructure Serving Rural Elderly Populations: Making the Macro-Micro Link (Chapter 11), in Gesler, W. M., Robiner, D. J. and DeFriese, G. H. (ed.): *Rural Health and Aging Research: Theory, Methods and Practical Applications*, New York: Baywood Publishing Company.

Kings, S., Collins, C. and Kokinakis, C. (1992), The transition from family to institutional care, paper presented at the Sigma Theta Tau International Research Conference, Columbus, OH. (cited in Dellasega and Mastrian, 1995)

Knopman, D., Kitto, J., Deinard, S. and Heiring, J. (1988), Longitudinal study of death and institutionalization in patients with primary degenerative dementia, Journal of American Geriatric Society (JAGS), Vol. 36, No. 2, pp. 108-112.

Kohler, M.(1995), Coming Clean on Care Costs: a consultation paper. Help the Aged.

Kraus, A. S., Spasoff, R. A. Beattle, E. J. (1976a), Elderly applicants to long-term care institutions: I. Their Characteristics, health problems and state of mind, Journal of the American Geriatric Society, Vol. 24, pp. 117-125.

Kraus, A. S., Spasoff, R. A., Beattle, E. J., Holden, D. E. W., Lawson, J. S., Rodenburg, M. and Woodcock, G. M. (1976b), Elderly applicants to long-term care institutions: II. The application process, placement and care needs, Journal of the American Geriatric Society, Vol. 24, No.4, pp. 165-172.

Kwon, H. J. (1999), *Income Transitions to the Elderly in East Asia: Testing Asian Values*, CASEpaper 27, Centre for Analysis of Social Exclusion, London School of Economics.

Laczko, F. and Victor, C. R. (1992), *Social Policy and Elderly People: the role of community care*, Avebury Studies of Care in the Community, Aldershot: Avebury.

Lai, H. L., Wu, S. C. and Chiang, T. L. (1996), A Pilot Study of Attitudes toward Nursing Homes Differentiated by Location and Generation, Nursing R.O.C., Vol. 43, No. 1, pp. 55-63.

Laing, W. (1993), *Financing Long-Term Care: The Crucial Debate*, London: Age Concern England.

Laing, W. (1997), *Long Term Care of Elderly and Physically Disabled People. Directory of Major Providers*, Tenth edition, London: Laing & Buisson.

Laing & Buisson (1996), *Care of Elderly People: Market Survey 1996* (9 edition), London: Laing & Buisson.

Laing & Buisson (1998), *Care of Elderly People: Market Survey 1998* (11 edition), London: Laing & Buisson.

Laslett, P. (1976), Social Development and Ageing. In Binstock, R. H. and Shanas, E. (ed.): *Handbook of Ageing and the Social Sciences.* New York: Van Nostrand Reinhold (cited in Bond et al., 1993).

Laslett, P. (1996), *A fresh map of life: the emergence of the third age*, London: Macmillan.

Lee, H., Kim, S., You, K. S. (1997), Learning from other lands: caring for elderly demented Koreans, Journal of Gerontological Nursing, Vol. 23, No. 9, pp. 21-31.

Lee, K. Y., Wang, R. G. and Chou, L. J. (1990), The evaluation of 20 elderly care institutions in three health districts of Taipei city, Public Health, R.O.C., Vol. 16, No. 4, pp. 416-423.

Lee, S. C., Kuo, H. W. and Dai, Y. T. (1997), A study of personnel's characteristics and duties in long-term care facilities, Public Health, R.O.C, Vol. 24, No. 3, pp.179-191.

Leece, J. (1995), Implementing community care: is there really more choice? Generations Review, Vol. 5, No. 2, pp. 2-5.

Le Grand, J. and Bartlett, W. (1993), *Quasi-Markets And Social Policy*, London: Macmillan Press Ltd..

Le Grand, J., Propper, C. and Robinson, R. (1992), *The Economics of Social Problems*, third eds., London: Macmillan Press Ltd..

Legge, V. and Westbrook, M. T. (1993), Perceptions of responsibility for the care of the aged in six Australian communities, Australian Health Review, Vol. 16, No. 3, pp. 287-299.

Lieberman, G. L. (1978), Children of the elderly as natural helpers: some demographic differences, American Journal of Community Psychology, Vol. 6, pp. 489-498.

Lieberman, M. A. and Fisher, L. (1999), The Effect of Family Conflict Resolution and Decision Making on the Provision of Help for an Elder with Alzheimer's Disease, The Gerontologist, Vol. 39, No. 2, pp. 159-166.

Lin, C. C. (1987), Demographic Transition and Financial Support for the Aged in Taiwan. Journal of Population Studies, 10, June, pp.1-14.

Lin, L.C., Ou, M. (1996), Comparing morale among the elderly in different long-term care

environments, Nursing Research, R.O.C., Vol. 4, No. 3, pp. 243-253.

Lin, L.C., Ou, M. and Wu, S. C. (1997), Perceived Family Function, Social Support and Emotion among Caregivers in Long-term Care, Nursing Research, R.O.C., Vol. 5, No. 1, pp. 77-87.

Litwak, E. and Longino, C. F. (1987), Migration patterns among the elderly: a developmental perspective, The Gerontologist, Vol. 27, No. 3, pp. 266-272.

Liu, H. C., Lin, K. N., Tsou, H. K., Lee, K. M., Yan, S. H., Wang, S. J. and Chiang, B. N. (1991), Impact of demented patients on their family members and caregivers in Taiwan, Neuroepidemiology, Vol. 10, pp. 143-149.

Liu, H. L., Huang, P. L., and Yaung, C. L. (1993), A Study of Home Care Services and Characteristics of Patients in the Kaohsiung Metropolis Area, China Public Health (Taipei), Vol. 12, No. 2, pp. 191-201.

Liu, K., (1994), A Data Perspective on Long-Term Care, The Gerontologist, vol. 34, No. 4, pp.476-480.

Liu, K. and Manton, K. G. (1983), The Characteristics and Utilization Pattern of an Admission Cohort of Nursing home patients (I), The Gerontologist, Vol. 23, No. 1, pp. 92-98.

Liu, K., McBride, T. D. and Coughlin, T. A. (1994), Risk of entering nursing homes for long versus short stays, Medical Care, Vol. 32, pp. 315-327.

Liu, W., M. and Wang, H. H. (1994), A Survey on long-term care facilities for the residents in Kaohsiung city, Public Health (Taiwan, R.O.C.), Vol. 21, No. 2, pp. 118-127.

Liu, X., Hermalin, A. I. and Chuang, Y. L. (1998), The Effect of Education on Mortality Among Older Taiwanese and Its Pathways, Journal of Gerontology: Social Sciences, Vol. 53B, No. 2, pp. S71-S82.

Liu, H. W. et al (1994), The study of long-term care facilities in Taiwan, report to Department of Health, DOH82-TD-007.

Lu, J. F. (1997), Financing for Long-Term Care, The International Symposia on Cross Nation Approach to the Care of Elderly, 1997, Taiwan: The Legislation Yuan, R.O.C.: Health and Social Welfare Committee.

Lynott, R. (1983), Alzheimer's Disease and Institutionalization: the ongoing construction of a disease, Journal of Family Issues, Vol. 4 (December), pp. 559-574.

Manton, K. G. (1989), Epidemiological, demographic, and social correlates of disability among the elderly, The Milbank Quarterly, Vol. 67 (Suppl. 2, Pt. 1), pp. 13-57.

Manton, K. G., Corder, L. and Stallard, E. (1993), Estimates of Changes in Chronic Disability and Institutional Incidence and Prevalence Rates in the U.S., Elderly population from the 1982, 1984, and 1989 National Long-Term Care Survey, Journal of Gerontology Social Sciences, Vol. 48, pp. S153-S166.

Martin, J., Meltzer, H. and Elliot, D. (1988), The Prevalence of Disability among Adults, OPCS Surveys of Disability in Britain, Report 1, HMSO, London.

Maurin, J. and Boyd, C. (1990), Burden of mental illness on the family: A critical view, Archives of Psychiatric Nursing, Vol. 2, pp. 99-107 (cited in Dellasega, 1991).

Mayo, M. (1994), *Communities and Caring: the mixed economy of welfare*, London: Macmillan.
McAuley, W. J. and Blieszner, R. (1985), Selection of long-term care arrangements by older

community residents, The Gerontologist, Vol. 25, No. 2, pp. 188-193.

McAuley, W. J. and Travis, S. S. (1997), Position of Influence in the Nursing Home Admission Decision, Research On Aging, Vol. 19, No. 1, pp.26-45.

McCall, N., Knickman, J. and Bauer, E. J. (1991), Public/Private Partnerships: A New Approach To Long-Term Care, Health Affairs, Vol. 10(1), Spring, pp.164-176.

McCoy, J. L. and Edwards, B. E. (1981), Contextual and Sociodemographic Antecedents of Institutionalization Among Aged Welfare Recipients, Medical Care, Vol. 19, No. 9, pp. 907-921.

McCracken, G. (1988), *The long interview*, Thousand Oaks, CA: Sage.

McCrossan, L. (1985), *A Handbook for Interviewers*, London: HMSO.

McCullough, L. B. and Wilson, N. L. (1995), Rethinking the Conceptual and Ethical Dimensions of Long-Term Care Decision-Making (Chapter 1), in McCullough, L. B. and Wilson, N. L. (ed.): *Long-Term Care Decisions: Ethical and Conceptual Dimensions*, Baltimore and London: The Johns Hopkins University Press.

McCullough, L. B. and Wilson, N. L., Teasdale, T. A., Kolpakchi, A. L. and Skelly, J. R. (1993), Mapping personal, familial, and professional values in long-term care decisions, The Gerontologist, Vol. 33, No. 3, pp. 324-332.

McFall, S. and Miller, B. H. (1992), Caregiver Burden and Nursing Home Admission of Frail Elderly Persons, Journal of Gerontology: Social Sciences, Vol. 47, No. 2, pp. S73-S79.

McGlone, F. and Cronin, N. (1994), *A crisis in care? : the future of family and state care for older people in the European Union*, Family Policy Studies Centre occasional paper: 19, Family Policy Studies Centre.

McKinlay, J. B., Crawford, S. L. and Tennstedt, S. L. (1995), The everyday impacts of providing informal care to dependent elders and their consequences for the care recipients, Journal of Ageing Health, Vol. 7, No. 4, pp. 497-528.

Mechanic, D. (1994), Mental/Substance Abuse, Journal of Health Politics, Policy and Law, Vol. 19, No. 1, pp. 227-232. (cited in Banaszak-Holl et al., 1998)

MelZer, D., McWilliams, B., Brayne, C., Johnson, T. and Bond, John (1999), Profile of disability in elderly people: estimates from a longitudinal population study, British Medical Journal, Vol. 318, 24 April, pp. 1108-1111.

Meredith, B. (1995), *The Community Care Handbook: the reformed system explained*, 2 eds., London: Age Concern England.

Midwinter, E. (1986), Caring for cash: the value of private domiciliary care, London, Centre for Policy on Ageing (cited in Phillips, 1992).

Miller, G. A., Galanter, E. and Pribram, K. (1960), *Plans and the structure of behavior*, New York: Holt, Rinehart & Winston. (cited in England, M., 1996)

Miller, J. A. (1991), *Community-Based Long-Term Care : Innovative Models*, London: SAGE Publications.

Minford, P. (1984), State Expenditure: a study in waste, London, Institute of Economic Affairs. (cited in Phillips, 1992)

Ministry of Interior (1996), *Social Status Report of Senior Citizens, R.O.C.*, September, 1996.

Ministry of Interior (1997), *Taiwan-Fuchien Demographic Fact Book, R.O.C.*.

Ministry of Interior (1998), *Taiwan-Fuchien Demographic Fact Book, R.O.C.*.

Ministry of Interior (1999), world wide web (http://www.moi.gov.tw)

Mittelman, M. S., Ferris, S. H., Shulman, E., Steinberg, G. and Levin, B. (1996), A Family Intervention to Delay Nursing Home Placement Of Patients With Alzheimer Disease, JAMA, December 4, Vol. 276, No. 21, pp. 1725-1731.

Montgomery, R. Gonyea, J. and Hooyman, N. (1985), Caregiving and the experience of subjective and objective burden, Family Relations, Vol. 34 (January), pp. 19-26.

Moore, J. (1988), Elderly people are usually upwardly mobile, Social Work Today, Vol. 19, No. 48, 4 August, pp. 5. (cited in Phillips, 1992)

Morris, J. N., Gutkin, C. E., Ruchlin, H. S. and Sherwood, S. (1987), Housing and case-managed home care programs and subsequent institutional utilization, The Gerontologist, Vol. 27, No. 6, pp. 788-796.

Morris, J. N., Sherwood, S., Gutkin, C. E. (1988), Insti-Risk II: an approach to forecasting relative risk of future institutional placement, Health Service Research, Vol. 23, No. 4, pp. 511-536.

Morse R. and Jenkinson D. (1995), Achieving high quality long-term care for elderly people: consumers' wishes and providers' responsibilities. Journal of the Royal College of Physician of London, Vol.29 No.3, May/June 1995.

Morycz, R. K. (1985), Caregiving strain and the desire to institutionalize family members with Alzheimer's disease, Research On Aging, Vol. 7, No. 3, pp. 329-361.

Mui, Ada C. (1995), Caring for Frail Elderly Parents: A Comparison of Adult Sons and Daughters. The Gerontologist vol.35, No. 1, 86-93.

Nazarko, L. (1995), Private health care on the march, Nursing Management (UK), Vol. 2, No. 7, pp. 22-24.

Neill, J., Sinclair, I., Gorback, P. and Williams, J. (1988), *A Need for Care: Elderly Applicants for Local Authority Homes*, Aldershot: Gower.

Neuman, W. L. (1997), *Social Research Methods: Qualitative and Quantitative Approaches*, 3rd eds., Needham Heights, MA, USA: Allen and Bacon.

Newman, S. and Struyk, R. (1990), Overwhelming odds: caregiving and the risk of institutionalization, Journal of Gerontology: Social Sciences, Vol. 45, pp. S173-S183.

Nies, H. (1992), Research and The Local Planning of Services for Elderly People: an interactive approach, Policy and Politics, Vol.20, No.1, pp.1-13.

Nocks, B. C., Learner, R. M., Blackman, D. and Brown, T. E. (1986), The effects of a community-based long-term care project on nursing home utilization, The Gerontologist, Vol. 26, No. 2, pp. 150-157.

Nolan, M., Walker, G., Nolan, J., Williams, S., Poland, F., Curran, M. and Kent, B. C. (1996), Entry to Care: positive choice or fait accompli? Developing a more proactive nursing response to the needs of older people and their carers, Journal of Advanced Nursing, Vol. 24, No. 2, pp. 265-274.

Novak, M. and Guest, C. I. (1989), Application for a Multidimensional Caregiver Burden

Inventory, The Gerontologist, Vol. 29, No. 6, pp. 798-803.

Numerof, R. E. (1983), Building and maintaining bridges: Meeting the psychosocial needs of nursing home residents and their families, Clinical Gerontologist, Vol.4, pp. 53-67.

Nyman, J. A. (1985), Prospective and "Cost-Plus" Medicaid Reimbursement, Excess Demand, and the Quality of Nursing Home Care, Journal of Health Economics, Vol. 4, pp. 237-259.

Ofstedal, M. B. and Chi, L. (1992), Intergenerational co-residence among the elderly in Taiwan: a simultaneous equation approach, paper presented at the 45th Annual Scientific Meeting of the Gerontological Society of America, Washington, D.C., USA.

Ogawa, N. (1990), Economic factors affecting the health of the elderly, in Kane, R. L., Evans, J. G. and Macfadyen, D. (ed.): *Improving the Health of Older People: A world view*, Oxford: Oxford University Press.

Office of National Statistics (1995), *Social Trends,* UK.

Office of Population Census Surveys (1992), General Household Survey, Carers in 1990. London: HMSO.

Office of Population Census Surveys (1994), General Household Survey 1991, People aged 65 and over. Series GHS No. 22, Suppl. A. London: HMSO.

Organization for Economic Co-operation & Development (1988), Ageing Populations: The Social Policy Implications, OECD, Paris (cited in Salvage, 1995).

Organization for Economic Co-operation & Development (1992), Urban Policies for Ageing Populations, OECD, Paris.

Parker, A. (1998), Forget the revolution: what can be done now? In O'Neil, A. and Statham, D. (ed.): *Shaping futures: rights, welfare and personal social services*, London: NISW.

Parker, G. (1990), With Due Care and Attention: A Review of Research on Informal Care (2nd ed.). Family Policy Studies Centre, London.

Passuth, P. M. and Bengtson, V. L. (1988), Sociological theories of ageing: current perspectives and future directions (chapter 15), in Birren, J. E. and Bengtson, V. L. ed. *Emergent Theories of Aging*, New York: Springer.

Paterson, L. (1978), A suitable case for care: the selection of residents for old people's homes, Health & Social Service Journal, Vol.88 (4580), pp. E1-E4 (cited in Phillips, J., 1992).

Pawlson, L.G. (1989), Financing Long-Term Care: the Growing Dilemma, Journal of American Geriatric Society, Vol. 37, pp. 631-638.

Peace, S. and Johnson, J. (1998), Living arrangements of older people (chapter 4), in Bernard, M. and Phillips, J. (ed.): *The Social Policy of Old Age: Moving into the 21st century*, London: Centre for Policy on Ageing.

Peace, S., Kellaher, L. and Willcocks, D. (1997), *Re-evaluating Residential Care*, Buckingham: Open University Press.

Peek, C.W., Coward, R. T., Lee, G. R. and Zsembik, B. A. (1997), The Influence of Community Context on the Preferences of Older Adults for Entering a Nursing Home, The Gerontologist, Vol. 37, No. 4, pp.533-539.

Phillips, J. (ed.) (1996), *Working carers: international perspectives on working and caring for*

older people, Aldershot: Avebury.

Phillips, J. (1992), *Private Residential Care: The Admission Process and Reactions of the Public Sector*, Aldershot: Avebury.

Phillips, D., Vincent, J. and Blacksell, S. (1988), *Home from Home? Private Residential Care for Elderly People*, Joint Unit for Social Services Research, University of Sheffield.

Phillipson, C. and Walker, A. (ed.) (1986), *Ageing And Social Policy: A critical Assessment*, Gower: Aldershot.

Post, S. (1988), An ethical prospective on caregiving in the family, Journal of Humanities and Bioethics, Vol. 9, pp. 6-16. (cited in Jecker, 1995)

Pratt, C., Schmall, V., Wright, S. and Hare, J. (1987), The Forgotten Client: Family Caregivers to Institutionalized Dementia Patients. In Brubaker T. (ed.): *Aging, Health and Families: Long Term Care*, Sage, California: Newbury Park, pp. 197-213.

Primrose, W. R. and Capewell, A. E. (1986), A Survey of Registered Nursing Home in Edinburgh, J R Coll Gen Pract, Vol. 36, pp. 125-128.

Pruchno, R. (1990), Caring for an Institutionalized Parent: Congitive Appraisals, Coping Strategies and Mental Health, Paper presented at the 43rd Annual Scientific Meeting of the Gerontological Society of America, Boston, Massachusetts, November (cited in Ross et al., 1993).

Pruchno, R., Michaels, J. E. and Potashnik, S. (1990), Predictors of Institutionalization Among Alzheimer Disease Victims with Caregiving Spouses, Journal of Gerontology: Social Science, Vol. 45, pp. S259-S266

Pyke, K. D. and Bengtson, V. L. (1996), Caring More or Less: Individualistic and Collectivist Systems of Family Eldercare, Journal of Marriage and the Family, Vol. 58 (May), pp. 379-392.

Qureshi, H. and Walker, A. (1989), *The Caring Relationship—Elderly People and Their Families*, London: Macmillan.

Rafferty, J., Smith, R., Lewis, S. and Levack, H. (1989), The Functional Status of Elderly People Admitted to a Local Authority Residential Home, Health Bulletin, Vol. 47, pp. 141-149.

Reday-Mulvey, G. (1990*), Work & Retirement: Future Prospects for the Baby-Boom Generation*, The Geneva Papers, No. 55, pp.100-113 (cited in Walker et al., 1993).

Reed, J., Payton, V. R. and Bond, S. (1998), The Importance of Place for Older People Moving into Care Homes, Social Science Medicine, Vol. 46, No. 7, pp. 859-867.

Reinardy, J. R. (1992), Decisional Control in Moving to a Nursing Home: Post-admission Adjustment and Well-being, The Gerontologist, Vol. 32, No. 1, pp. 96-103.

Reschovsky, J. D. (1996), Demand for and Access to Institutional Long-Term Care: The Role of Mediciad in Nursing Home Markets, Inquiry, Vol. 33, pp. 15-29 (Spring, 1996).

Rivlin, A. M. and Weiner, J. M. (1988), *Caring for the Disabled Elderly: Who Will Pay?* Washington: Brookings Institution (cited in Zedlewski, S. R. and McBride, T. D.,1992).

Robinson, K. M. (1997), The family's role in long-term care, Journal of Gerontological Nursing, Vol. 23, No. 9 (September), pp. 7-11.

Rodgers, B. L. (1997), Family members' experiences with the nursing home placement of an older adult, Applied Nursing Research, Vol. 10, No. 2 (May), pp. 57-63.

Roos, N. P., Roos, L. L., Mossey, J. and Havens, B. (1988), Using administrative data to predict important health outcomes; entry to hospitals, nursing home, and death. Medical Care, Vol. 26, No. 3 (March), pp. 221-239.

Ross, M. (1991), The Caregiving Career Following the Institutionalization of Husbands. Unpublished Ph.D. dissertation, University of Toronto, Toronto (cited in Ross et al., 1993).

Ross, M. M., Rosenthal, C. J. and Dawson, P. G. (1993), Spousal Caregiving Following Institutionalization: the experience of elderly wives, Journal of Advanced Nursing, Vol. 18, pp.1531-1539.

Rowles, G. D. and High, D. M. (1996), Family Roles in Nursing Home Decision-Making, Journal of Gerontological Nursing, Special Issue: Individualizing Care, March, 1996, pp.20-25.

Rummel, A., Francis, J., Duserick, F. and Enke, E. (1994), The Use of Market Research to Design Healthcare Offerings: A case study of a senior citizen community. Hospital Topics, Vol.72 (2), pp.14-18, Spring.

Salamon, M. J. and Rosenthal, G. (1990), *Home or Nursing Home: Making the Right Choices*, Chapter 4: Examining the Home-Care/Nursing Home Choice: Bias and Reality, New York: Springer Publishing Company.

Salvage, A. (1995), *Who Will Care? Future prospects for family care of older people in the European Union,* European Foundation for the Improvement of Living and Working Conditions, Loughlinstown House, Shankill, Co. Dublin, Ireland

Sangl, J. (1983), The Family Support System of the Elderly, In Vogal, R. and Palmer, H. (ed.): *Long Term Care*, Washington, DC: Health Care Financing Administration.

Scanlon, W. (1980), A Theory of the Nursing Home Market, Inquiry, Vol. 17, pp. 25-41.

Schneider, D. P., Fries, B. E. and Foley, W. J., Desmond, M. and Gormley, W. J. (1988), Case mix for nursing home payment: Resource utilization groups, version II, Health Care Financing Review, Vol. 9 (suppl.), pp. 39-52.

Schneider, R. L. and Kropf, N. P. (1996), The Admission Process in Nursing Homes: A Clinical Model for Ethical Decision-Making, Journal of Long-Term Home Health Care, Vol. 15, No. 3 (Summer), pp. 39-46.

Scott, W. K., Edwards, K. B., Davis, D. R., Cornman, C. B. and Macera, C. A. (1997), Risk of Institutionalization Among Community Long-Term Care Clients With Dementia, The Gerontologist, Vol. 37, No. 1, pp. 46-51.

Severson, M. A., Smith, G. E., Tangalos, E. G., Peterson, R. C., Kokmen, E., Ivnik, R. J., Atkinson, E. J. and Kurland, L. T. (1994), Patterns and predictors of institutionalization in community-based dementia patients, Journal of American Geriatric Society, Vol. 42, No. 2, pp. 181-185.

Shapiro, E., Tate, R. (1988), Who is really at risk of institutionalization?, The Gerontologist, Vol. 28, No. 4, pp. 237-245, April.

Shieh, Y. H., Cheng, H. H., Lin, C. H., Lin, Y. C. and Hong, C. L. (1995a), The Investigation of Daily Life Expendency among the Elderly over 65 in a Community in Taipei, Journal of Taipei Medical College, Vol. 24, No. 1, pp. 9-17.

Shieh, Y. H., Cheng, H. S., Su, C. T., Wang, P. S. (1995b), An Evaluation on the Difference of Medical Resources and Need among Public and Private Nursing Institutions, Journal of Taipei Medical College, Vol. 24, No. 2, pp. 12-20.

Shyu, YI. L., Yip, P. K. and Chen, R. C. (1996), Caregiving experiences of family caregivers of elderly persons with dementia in northern Taiwan, Kaohsiung Journal Medical Science, Vol. 12, pp.50-61.

Sinclair, I. (1986), The residents: characteristics and reasons for admission, in Judge, K. and Sinclair, I. (ed.): *Residential care for elderly people*, London: HMSO (cited in Phillips, 1992).

Sinclair, I., Standforth, L. and O'Conner, P. (1988), Factors Predicting Admission of Elderly People to Local Authority Residential Care, British Journal of Social Work, Vol. 18, No. 3, pp.251-269.

Sinclair, I. (1990), Residential care (chapter 10), in Sinclair, I., Parker, P., Lead, D. and Williams, J. (ed.): *The Kaleidoscope of Care: A Review of Research on Welfare Provision for Elderly People*, London: HMSO, pp. 197-216.

Slevin, A. P. and Roberts, A. S. (1987), Discharge Planning: A Tool for Decision Making, Nursing Management, Vol. 18, No. 12 (December), pp. 47-50.

Smallegan, M. (1985), There Was Nothing Else To Do: Needs for Care Before Nursing Home Admission, The Gerontologist, Vol. 25, pp. 364-369.

Smyer, M. A. (1980), The differential usage of services by impaired elderly, Journal of Gerontology, Vol. 35, No. 2, pp. 249-255.

Soldo, B. J., Agree, E. M., Wolf, D. A. (1989), The balance between formal and informal care, in Ory, M. G. and Bond, K. (ed.): *Aging and Health Care: Social Science and Policy Perspectives*, London: Routledge.

Soldo, B. J. and Myllyluoma, J. (1983), Caregivers Who Live with Dependent Elderly, The Gerontologist, Vol. 23, pp. 605-611.

Spector, W. D., Reschovsky, J. D. and Cohen, J. W. (1996), Appropriate Placement of Nursing-Home Residents in Lower Levels of Care, The Milbank Quarterly, Vol. 74, No. 1, pp. 139-165.

Spohn, P, H., Holstein, M. and Estes, C. L. (1986), A Community Grantmaking Strategy for the Frail Elderly in the San Francisco Bay Area, Paper prepared for the Henry J. Kaiser Family Foundation, University of California, Institute for Health & Aging, San Francisco.

Statistics Office (1992), Annual Report. Statistics office, Executive Yuan, Taiwan, R. O. C..

Stevens & Gabbay (1991), Needs assessment needs assessment, Health Trends, Vol. 23 (1), pp.20-23.

Stone, R. G., Cafferata, G. and Sangl, J. (1987), Caregivers of the Frail Elderly: A National Profile, The Gerontologist, Vol. 27, pp. 616-626.

Stone, R. G. and Kemper, P. (1990), Spouses and Children of Disabled Elders: How Large a Constituency for Long Term Care Reform? Milbank Memorial Fund Quarterly, Vol. 67, pp. 485-505 (cited in Freedman, V. A., 1993).

Tennstedt, S., Crawford, S. and McKinlay, J. (1993), Determining the Pattern of Community Care: Is Coresidence More Important than Caregiver Relationship?, Journal of Gerontology: Social Science, Vol. 49, No. 2, pp. S74-S83.

Tennstedt, S., Harrow, B. and Crawford, S. (1996), Informal care vs. Formal services: changes in patterns of care over time, Journal of Aging Social Policy, Vol. 7, No. 3-4, pp. 71-91.

Tennstedt, S., McKinlay, J. and Kasten, L. (1994), Unmet need among disabled elders: a problem in access to community long term care? Social Science and Medicine, Vol. 38, No. 7 pp. 915-924.

The Central Bureau of National Health Insurance, Taiwan (1998), *Overview of National Health Insurance, Taiwan*.

The Royal Commission (1999), *With Respect to Old Age: Long Term Care- Rights and Responsibilities*, A Report by The Royal Commission on Long Term Care, March, London: The Stationary Office.

The Royal Commission (1999), *With Respect to Old Age: Long Term Care- Rights and Responsibilities*, Volume 1: The Context of Long-Term Care Policy, London: The Stationary Office.

The Royal Commission (1999), *With Respect to Old Age: Long Term Care- Rights and Responsibilities*, Volume 2: Alternative Models of Care for Older People, London: The Stationary Office.

The Royal Commission (1999), *With Respect to Old Age: Long Term Care- Rights and Responsibilities*, Volume 3: Community Care and Informal Care, London: The Stationary Office.

The Stationary Office (1997), *Living in Britain: Results from the 1995 General Household Survey*, a publication of the Government Statistical Service, Office for National Statistics, UK.

Thomson, D. (1983), Workhouse to nursing home: residential care of elderly people in England since 1840. Ageing and Society, 3, 41-69.

Tinker, A., McCreadie, C., Wright, F., and Salvage, A. (1994), *The care of frail elderly people in the United Kingdom*, HMSO.

Tinker, A. (1989), An Evaluation of Very Sheltered Housing. HMSO, London.

Townsend, A. L. (1987), Family Caregiver's Perspectives on the Institutionalization Decision, ERIC document No. ED 296233, Cleveland, OH: Benjamin Rose Institute. (cited in McFall and Miller, 1992).

Townsend, P. (1993), The structured dependency of the elderly: a creation of social policy in the Twentieth century (chapter 21), in Bornat, J. et al. ed. *Community Care: a reader*, London: Macmillan / Open University Press.

Townsend, P. (1981), The structured dependency of the elderly: a creation of social policy in the Twentieth century, Ageing and Soceity, Vol. 1, part 1, pp. 5-28.

Townsend, P. (1962), The last refuge, London: Routledge & Kegan Paul (cited in Phillips, J., 1992).

Treas, J. and Bengtson, V. (1987), The family in later years, In: Sussman, M. B. and Steinmetz, S. K. (ed.): *Handbook of Marriage and the Family*, pp. 625-648, New York: Plenum Press (cited in Bond, J. et al.).

Vincent, J., Tibbenham, A. and Phillips, D. (1987), Choice in residential care: myths and realities, Journal of Social Policy, Vol. 16, No. 4, pp. 435-460.

Vicente, L. , Wiley, J., and Carrington, R. A. (1979), The risk of institutionalization before death, The Gerontologist, Vol. 19, No. 4, pp. 361-367.

Vickery, D. M. and Lynch, W. D. (1995), Demand Management: Enabling Patients to Use Medical Care Appropriately, Journal of Occupational & Environmental Medicine (JOEM), Vol.

37, No. 5, May, pp. 551-557.

Victor, C. R. (1991), *Health and Health Care in Later Life*. Buckingham: Open University Press.

Victor, C. R. (1987), *Old Age in Modern Society: A Textbook of Social Gerontology*, London: Croom Helm.

Wagner, D. (1988), Who defines quality? Caring, Vol.7, pp.26-29 (cited in Cox, C. B., 1996).

Walker, A. (1992), Towards a European Agenda in Home Care for Older People: Convergence and Controversies, in Evers, A. and Van der Zanden (ed.): *Better Care for Dependent People Living at Home*, Nijmegen, Netherlands, Institute of Gerontology/European Centre for Social Welfare Policy & Research (cited in Salvage, A. 1995).

Walker, A., Albert, J. and Guillemard, A. M. (1993), Older People in Europe, Social and Economic Policies, The 1993 Report of the European Observatory, Commission of the European Communities, Directorate General V, Employment, Social Affairs, Industrial Relations (cited in Salvage, A. 1995).

Walker, A. (1982), Dependency and old age, Social Policy and Administration, Vol. 16, pp. 115-135.

Walker, A. (1981), Toward a political economy of old age, Ageing and Society, Vol. 1, part 1, pp. 73-94

Wallace, R. B. & Woolson, R. F. (1992), *The Epidemiologic Study of the Elderly*, Oxford: Oxford University Press.

Wan, T. T. and Odell, B. G. (1981), Factors affecting the use of social and health services among the elderly, Ageing and Society, Vol. 1, part 1, pp. 95-115.

Warburton, R. W. (1994), Implementing Caring for People: Home and Away, PSSRU, Lancashire: BAPS, Health Publications Unit, Storage and Distribution Centre.

Warnes, A. M. (1993), Being Old, Old People and the Burdens of Burden, Ageing and Society, Vol. 13, part 3, pp. 297-338.

Weaver, T., Willcocks, D. and Kellaher, L. (1985a), The pursuit of profit and care: patterns and processes in private residential homes for old people, Centre for Environmental and Social Studies in Ageing, Polytechnic of North London (cited in Phillips, 1992).

Weaver, T., Willcocks, D. and Kellaher, L. (1985b), The business of care: a study of private residentail homes for old people, report no. 1, Centre for Environmental and Social Studies in Ageing, Polytechnic of North London (cited in Phillips, 1992).

Weiner, J. (1994), Financing Long-Term Care: A Proposal by the American College of Physicians and the American Geriatrics Society, JAMA, May 18, Vol. 271, No. 19, pp. 1525-1529.

Weinstein, M., Sun, T. H., Chang, M. C. and Freedman, R. (1990), Living arrangements of Couples and Their Parents (Chapter 9), in Arland Thorton (ed.): *Social Change and the Family in Taiwan*, published by the University of Chicago Press.

Weissert, W. G. and Musliner, M. G. (1992), Case mix adjusted nursing-home reimbursement: A critical review of the evidence, The Milbank Quarterly, Vol. 70, pp. 455-490.

Wenger, C. (1990), Elderly Carers : the need for appropriate intervention, Ageing and Society, Vol. 10, pp. 197-219.

Wennberg, J. E., Roos, N. P., Sola, L. (1987), Use of claims data systems to evaluate health care outcomes: mortality and reoperation following prostatectomy, JAMA, Vol.257, pp. 933.

Wierik, M. Frederiks, C., Sturmans, F. and Visser, A. (1992), Nursing home admission; a comparison of applicants to nursing homes and homes for the aged, International Journal of Health Sciences, Vol. 3, No. 2, pp. 77-89.

Wilder, D., Teresi, J. and Bennett, R. (1983), Family burden and dementia, in Mayeaux, R. and Rosen, W. (ed.): *The Dementias*, New York: Raven Press (cited in Morycz, 1985).

Wilkin, D. (1987), Conceptual problems in dependency research, Social Science and Medicine, Vol. 24, No. , pp. 867-873.

Wilkin, D & Thompson, C. (1989), *Users' Guide to Dependency Measures for Elderly People*, University of Sheffield, Joint Unit for Social Services Research.

Williams, E. I., Salvage, S., Mcdonald, P. (1991), A study of resident dependency in Nottingham nursing homes, Department of General practice, the Medical School, Queen's Medical Centre, Nottingham.

Williams, E. I., Salvage, S., Mcdonald, P. and Groom, L. (1992), Residents of private nursing homes and their care, British Journal of General Practice, Vol. 42, No. 364, November, pp. 477-481.

Willoughby, J. (1988), Alzheimer's disease and psychiatric institutionalization: Experiences of family caregivers. Unpublished master's thesis, University of Alberta, Canada. (cited in Dellasega and Mastrian, 1995).

Wilson, G. (1993), The challenge of an ageing electorate: changes in the formation of social policy in Europe?, Journal of European Social Policy, Vol. 3, pp.91-105.

Wilson, S. A. (1996), The transition to nursing home life: a comparison of planned and unplanned admissions, Journal of Advanced Nursing, Vol. 26, pp. 864-871.

Wiseman, R. F. and Roseman, C. C. (1979), A typology of elderly migration based on the decision making process, Economic Gerontology, Vol. 55, pp. 324-327 (cited in McAuley and Travis, 1997).

Wolinsky, F. D. (1978), Assessing the effects of predisposing, enabling, and illness-morbidity characteristics on health service utilization, Journal of Health and Social Behavior, Vol. 19 (December), pp.384-396.

World Health Organization (1980), *International Classification of Impairment, Disabilities and Handicaps*, WHO, Geneva.

Woo, J., Ho, S. C., Lau, J. and Yuan, Y. K. (1994), Age and marital status are major factors associated with institutionalization in elderly Hong Kong Chinese, Journal of Epidemiology and Community Health, Vol. 48, pp. 306-309.

Wright, K. (1990), The role of aging in establishing social priorities: an economic perspective (Chapter 40), in Kane, R. L., Evans, J. G. and Macfadyen, D. (ed.): *Improving the Health of Older People: A world view*, Oxford: Oxford University Press.

Wu, S. C. and Chang, M. C. (1997), *Health care for the elderly in Taiwan: a fact book*, Institute of Public Health and Center for Health Policy Research, National Taiwan University and Taiwan Provincial Institute of Family Planning, Taipei, Taiwan.

Wu, S. C. and Chu, C. M. (1995), Public attitudes toward long-term care arrangements for the elderly: findings from 1994 social image survey, China Public Health (Taipei), Vol. 14, No. 4, pp. 369-382.

Wu, S. C. and Chu, C. M. (1996), Public attitudes toward long-term care arrangements for the elderly in Taiwan, Hong Kong Journal of Gerontology, Vol. 10, No. 1, pp. 18-27.

Wu, S. C., Hsu, H. C., Chuang, Y. C. & Chang, M. C. (1996), Application of functional assessment in estimating long-term care need among non-institutionalized elderly adults in Taiwan, China Public Health (Taipei), Vol. 15, No. 6, pp. 533-545.

Wu, S. C., Lai, H. L. & Chiang, T. L. (1994), Factors affecting the willingness of community elderly to reside in a nursing home, China Public Health (Taipei), Vol.13, No. 5, pp. 388-394.

Wu, S. C., Li, C. Y. & Chang, A. L. (1997), The influence of intergenerational exchange on nursing home admission in Taiwan, Journal of Cross-Cultural Gerontology (accepted).

Wu, S. C. and Lin, H. S. (1999), A national profile of family caregivers of the disabled elderly people in Taiwan, China Public Health (Taipei), Vol. 18, No. 1, pp. 44-53.

Wu, S. C. and Lieu, B. G., Lu, R. F., Hsiu, H. G. and Jian, G. C. (1998), *The study of a long-term care system matching the social welfare policy in Taiwan*, Research project II-1289, Research, Development and Evaluation Commission, Executive Yuan, R.O.C..

Wu, S. L., Chang, Y. J., Lin, F. H. and Yao, K. M. (1992), A study on the burdens and demands of primary caregivers of frail elderly in the community of Taiwan Province, Public Health, R.O.C., Vol.19, No. 2, pp.166-177.

Wu, S. L. and Chang, Y. J. (1995), A Study on Numbers and Services of Unlicensed Nursing Homes in Twelve Counties of Taiwan Province, Public Health, R.O.C, Vol. 22, No. 3, pp. 147-162.

Wu, S. L., Hsu, H. C., Chuang, Y. C. and Chang, M. C. (1996), Application of Functional Assessment in Estimating Long-Term Care Need among Non-institutionalized Elderly Adults in Taiwan, China Public Health (Taipei), Vol. 15, No. 6, pp. 533-545.

Wu, S. L., Hu, H. C., Yao, K. M. (1991), A study on the burdens and needs of primary caregivers of frail elderly in home care program, Public Health, R.O.C, Vol. 18, No. 3, pp.237-248.

Wu, S. L., Laing, J. C. and Lin, H. S. (1994), The study of long term care for elderly people, Research report, No. DOH83-TD-085, Depart of Health, Executive Yuan, R.O.C.

Yang, R. J., Huang, L. H. and Hu, Y. H. (1995), Health maintenance demand and related factors of the elderly in self-paid residential care homes, China Public Health (Taipei), Vol. 14, No. 6, pp.477-486.

Yen, Wu-Kuo, Wu, S. C., Shu, C. C. and Chen, P. H. (1996), Non-Acute Long-Stay Patients among General Hospitals in Taipei City: Prevalence, Long-Term Care Need, and Long-Term Care Attitudes, Nursing Research (Taiwan), Vol. 4, No. 2, pp. 151-160.

Yu, Y. M. (1990), An exploratory study of the possibility of home care program be reimbursed by NHI, research sponsored by Directorate-General of Budget, Accounting and Statistics, Executive Yuan, R.O.C., 1990.

Zarit, S. H., Reever, K. E. and Bach-Peterson, J. (1980), Relatives of the Impaired Elderly: Correlates of Feelings of Burden, The Gernotologist, Vol. 20, No. 6, pp. 649-655.

Zedlewski, S. R. and McBride, T. D. (1992), The Changing Profile of the Elderly: Effects on

Future Long-term Care Needs and Financing, The Milbank Quarterly, Vol. 70, No. 2, pp. 247-275.

Zsembik, B. A. (1996), Preference for co-residence among older Latinos, Journal of Aging Studies, Vol. 10, pp. 69-81 (cited in Peek et al., 1997).

Appendix A. The List of Nursing Homes in Taiwan

No.	*Area*	*Name of nursing home institution*	*Beds*	*Already been opened(√)*
1	Taipei city	public sector (National)	50	√
2	Kaohsiung city	voluntary sector (Foundation)	58	√
3	ditto	private sector (independent)	30	√
4	ditto	private sector (independent)	8	√
5	ditto	private sector (independent)	23	√
6	ditto	private sector (hospital-based)	84	√
7	ditto	private sector (Catholic/hospital-based)	49	√
8	ditto	private sector (hospital-based)	19	√
9	ditto	private sector (hospital-based)	26	√
10	ditto	private sector (independent)	74	√
11	ditto	private sector (independent)	29	√
12	ditto	private sector (independent)	18	√
13	ditto	private sector (independent)	19	√
14	ditto	private sector (independent)	80	√
15	Kelong city	Public sector (hospital-based)	30	√
16	Taipei county	private sector (Catholic/hospital-based)	52	√
17	Muaili county	private sector (hospital-based)	100	√
18	Taichung city	private sector (independent)	49	√
19	ditto	private sector (hospital-based)	74	√
20	ditto	public sector (hospital-based)	49	√
21	Taichung county	private sector (independent)	28	√
22	Taichung county	private sector (hospital-based)	70	√
23	Nang-tao county	private sector (Catholic/hospital-based)	23	√
24	Chaiyi city	private sector (independent)	45	√
25	Tainan city	private sector (independent)	25	√
26	ditto	private sector (independent)	30	√
27	Kaohsiung county	private sector (independent)	30	√
28	ditto	private sector (hospital-based)	13	√
29	ditto	private sector (hospital-based)	20	√
30	Pingtong county	private sector (hospital-based)	30	√
31	Eelang	Public sector (hospital-based)	41	√
Total		31 homes	1276	

3/Feb./1998

Source:

(1) Department of Health, List of registered nursing homes in Taiwan Area (December/1997)

(2) The Long Term Care Professional Association of ROC, List of registered nursing homes in Taiwan Area (Febuary/1998)

APPENDIX B. Questionnaires

The questions used in these questionnaires relate to the following questionnaires:

1. Challis, L. and Bartlett, H. (1987), *Old and Ill*, Centre for the Analysis of Social Policy, University of Bath. (Basic information about the nursing home)
2. Bartlett, H. and Snell, M. (1988), *Charging in the private nursing home industry*, Bath Social Policy Papers, University of Bath. (Charge, standard of fees)
3. Bartlett, H. (1993), *Nursing Homes for Elderly People: questions of quality and policy*, Reading, UK: Harwood Academic. (Experiences and problems in running a home)
4. Tinker, A. et al. (1995), *Difficult-to-let: sheltered housing*, London: HMSO. (Questionnaires obtained direct from the researchers) (Patient's basic information)
5. Williams, E. I. et al. (1992), A Study of Resident Dependency in Nottingham Nursing Homes, Department of General Practice, The Medical School, Queen's Medical Centre, Nottingham. (The dependency level: JUSSR)
6. Allen, I. et al. (1992), *Elderly people: Choice, Participation, and Satisfaction*, Policy Studies Institute, London. (Patient's choice, discussion and control)
7. Gonyea, J. G. (1987), The Family and Dependency: Factors Associated with Institutional Decision-Making, Journal of Gerontological Social Work, Vol. 10, pp. 61-77. (Family/Government obligation)
8. Kraus, et al. (1976), Elderly applicants to long-term care institutions. II. The application process; placement and care needs, Journal of the American Geriatric Society, Vol. 24, No. 4, pp. 165-172. (Reasons for nursing home entry; why this home)
9. Morris, et al. (1988), Inst-Risk II: An approach to forecasting relative risk of future institutional placement, Health Services Research, Vol. 23, No. 4, pp. 511-536. (Demographics, self-rated health, decision making)
10. Lin, L. C., Ou, M. and Wu, S. C. (1997), Perceived Family Function, Social Support and Emotion among Carers in Long-term Care, Nursing Research, R.O.C., Vol. 5, No. 1, pp. 77-87. (Preferences for long-term care)
11. McAuley, W. J. and Travis, S. S. (1997), Position of Influence in the Nursing Home Admission Decision, Research On Aging, Vol. 19, No. 1, pp.26-45. (The most influential person in the decision making process)
12. Greenberg, J. R., Monson, T., and Gesino, J. (1993), Development of University of Wisconsin Family Assessment Caregiver Scale (UW-FACS): A New Measure to Assess Families Caring for a Frail Elderly Member, Journal of Gerontological Social Work, Vol. 19(3/4), pp. 49-68. (Family Function Scale)

*** All these questionnaires were administered in Chinese and this is the English translation ***

Questionnaires: Supply side

Part I: Basic Information

To officer-in-charge,

This is a study for all the registered nursing homes in Taiwan in order to present the profile of the nursing homes, their patients and the proprietors. This questionnaire is about basic information of your nursing home. This study cannot be fulfilled without your help. Many thanks for willing to participate in this study, please fill in the questionnaire and send it back as we can arrange the interviews with the proprietor and the patients at your most convenience. ***Thank you very much!***

Instruction:

Survey of Nursing Homes for Elderly People

1. Please complete the information asked for by __/__/__ .
2. The questionnaire is relatively simple and quick to complete. Please fill in for the basic information of your home, our research interviewer can then select samples from your 'patients' and arrange the interviews in your home.
3. Should you wish to make any additional comments about the questionnaire, individual questions, or concerning any current issues in nursing home care for the elderly in Taiwan, please use the reverse of the sheets at the end of the questionnaire.
4. Please indicate the name and status of person completing the questionnaire:

_____

5. If you have any publicity/advertisement, or brochure of your home, please send one copy to us as a reference, *thank you very much!*
6. Please return your completed questionnaire to us in the business reply envelope provided to:-

Li-Fan, Liu

C10-1, No. 61, Shaw-Tong Rd., Tainan, Taiwan.

SECTION A. General details about the home

1. Name of the home: _____
2. Address of home: _____
3. a) How long ago was the home first registered as a nursing home?_____
   b) This home has already opened for ____years ____months.
4. a) How many places is the home registered for by the County/City Health Bureau?____
   b) How many bedrooms of the following types are provided?

Single _____
Twin _____
Triple _____
Four or more sharing _____
Open ward _____

5. a) Please list your charge standards monthly per patient?

_____
_____
_____
_____
_____
_____

   b) Please list any items for which additional charges are made? (e.g. laundry, incontinence pads)

_____
_____
_____

6. a) Are there currently any vacancies?_____(Yes, No)
      If YES, How many ?_____
   b) The average rate of bed occupancy of your home is _____%

7. Building and equipment and personal cost:
   a) Building space: _____ m*m; Capital cost:_____ or
      Rent (per month):_____
   b) Fixed expense (per month):____(building cost and staff salary are not included)
   c) Main medical facilities:

_____
_____
_____
_____

   d) Personnel cost: _____; among all the expenses per month: _____%

Section B. Ownership and Staffing

8. Are the nursing home premises owned or leased? ____
9. How long has the nursing home been under its present ownership?
   ____ years____ months

10. Please name the "person/s registered" in respect of the home. (If the "person registered" is a limited company--please name the company)

_____
_____

11. a) Is the "person registered" also the "person in charge" of the home?____(Yes, No)
       (tick Yes, if a company director is also the "person in charge")
    b) If YES, What are the duties of the "person/s in charge"? (Please tick as appropriate box/es)

nursing care	
general administration	
wages	
catering supervision	
maintenance	
other (specify_____)	

12. a) To your knowledge, does the "person registered" own any other homes?___(Yes, No)
    b) Are there plans for the opening of any other home/s in the next year?____(Yes, No)
13. Ownership:
    Is the home a (Please tick as appropriate box/es)

Public sector/Government-owned	
hospital-based	
non hospital-based	
Private hospital-based	
Private freestanding	
private individual	
a joint proprietorship (2 or more)	
private limited company	
Voluntary/charitable body	
Religious organization	

14. Is the "person registered" a member of the following associations? (tick more than one box if appropriate)

Nurse Association, R.O.C.	
The Long Term Care Professional Association of R.O.C.	
Hospital Association of R.O.C.	
Independent Hospital Group	
Society of Public Health, R.O.C.	
Other (Specify_____)	

15. How many full and part-time staff are employed by the home? (excluding the owner/s)

	Full time	Part time	If part-time, Working hours/per week
Matron (or person in charge)			
Deputy matron (or deputy person in charge)			
SRNs (Senior Registered Nurse)			
RNs (Registered Nurse)			
Auxiliaries			
Care assistants			
Physiotherapist			
Nutritionist			
Administrator			
Bursar			
Secretary			
Cooks			
Gardeners/maintenance			
Domestics/cleaners			
Laundress			
Other (Specify_____)			

16. Staff numbers:
    Number of paid staff: _____
    Number of voluntary staff: _____

Section C. <u>The Patients</u>

17. How many patients are currently cared for by the home?

	Males	*Females*
Under 65 yrs		
65-74 yrs		
75-84 yrs		
85-94 yrs		
95+yrs		

18. Where do your patients come from?

Hospital discharge plan	%
Nursing homes or other institutions	%
Patients' own homes	%
Others (Specify_____)	%

19. What is the main medical problem for your patients?
Please prioritize the 5 leading diagnoses of diseases and the percentages

_____ ____%
_____ ____%
_____ ____%
_____ ____%
_____ ____%
_____ ____

20. a)What is the criteria for accepting patients in your nursing homes?_____

_____

b) Is any assessment of the patient undertaken?
(Please tick as appropriate box/es)

At time of admission	
After admission	
Regular assessment (ex. per month)	
At discharge	
No assessment	
Other (specify_____)	

c) What kind of assessment do you take?_____

21. a) Is it usual practice for patients (or their relatives/friends) to sign a formal contract/agreement on admission to the home?_____(Yes, No)
b) If YES, is the contract designed by your nursing home?_____(Yes, No)
c) If NO, who designed or supplied it? _____

Section D. Publicity and Referrals

22. Is there any promotional material about the home (i.e. brochure or leaflet)? ____(Yes, No)
23. Is the home advertised in any of the following places?(Please tick appropriate boxes)

	Never	*Occasionally*	*Frequently*
Yellow pages			
Newspaper			
Journal			
Library			
Health centre/Surgery			
Clinics/Hospitals			
Other place (specify_____)			

24. a) Which person is responsible for admitting the majority of your patients?_____
(e.g. doctor, social worker, relative of patients...etc.)
b) Is there any hospital contract with this home for referring patients?

_____

Section E. Facilities, Medical and Health care

25. Which of the following facilities are provided for the use of patients?
(Please tick appropriate boxes)

TV lounge	
Dining room	
Guest room for relatives	
Bar	
Shop	

Mobile telephone	
Radio	
TV point in bedroom	
Gardens	
Choice of menu	
Library/visiting librarian	
Rehabilitation facilities	
Day outings	
Transport facilities	
Lift	
Other (Please specify _____)	

26. Who pays for the medical services for the patients in the home?
    Please comment: _____

    _____

27. Which of the following services are included in the monthly charges?

	YES	NO
Medical care		
Extra nursing care		
Physiotherapy		
Chiropody		
Occupational therapy		
Speech therapy		
Other (Please specify: _____)		

28. Current elderly patients in the home

Patient	Age (to nearest year)	Length of stay (to nearest months)	Who arranged admission (e.g. relative, social worker, doctor	Location of prior accommodation	State of health on admission* (see below)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

* Please indicate the patient's state of health on admission by inserting the code from one of the following categories:-

A. Primarily fit
B. Primarily frail
C. Primarily mentally ill/confused
D. Primarily physically ill
E. Both frail/physically ill/confused

Part II: Interview Schedule
for owner/ proprietor or head of a nursing home

No._____

Thank you very much for agreeing to this interview. This is a study for all the registered nursing homes in Taiwan in order to present the profiles of the nursing homes, their patients and the proprietors. This questionnaire is about the proprietor's view in investing in nursing homes and your view of the nursing home industry in Taiwan. There are 8 open-ended questions in this questionnaire so please express your opinion and idea as much as you can. This study cannot be fulfilled without your help. ***Thank you very much!***

Name of the home: _____
Date of interview: _____
Time of interview: from_____ to _____

1. Are you: __the owner/proprietor; __ the officer in charge; __both.
2. What is your background? _____
3. Does the home match the nursing home standards/code of practice regulated by the government?
   (e.g. the minimum requirement of a nursing home)?_____ (Yes, No)
   If some items are not matched yet, What are they? Please comment:

   _____

   _____

4. How did you decide the charges of the nursing home?
   (Please tick the appropriate box/es and prioritize them from 1: the most important)

Guesswork/No calculation	
Inherited levels of charge/comparison with other nursing home	
According to the infirmity of patients	
Cost standards	
Nurse/patient ratio	
Quality of care/facilities	
Regulation from the government	
Inflation	
Other (specify_____)	

5. 1) Why did you decide to invest in this nursing home(Your motive)?

   _____

   2) Have you ever considered other alternatives?

   _____

6. What are the main factors that you think influencing your willingness to invest in a nursing home?
   (ex. Health care alternatives, Insurance scheme, Health policy...)

   _____

   _____

   _____

7. What are the main problems in running a nursing home?

   _____

   _____

8. What you think will be the impact of the National Health Insurance Scheme on the nursing home industry in Taiwan?

   _____

   _____

   _____

Thank you very much!

Questionnaires: Demand side

Part A. Basic information about the patient

---to be completed by nursing staff

Date: _____

1. Nursing home:_____

2. Characteristics of the patient

2a. Patient name:_____(No._____)

2b. Age:_____(Born on Date __/Month __/Year__)

2c. Sex:_____(Male, Female)

2d. Marital status:_____(Single, Married, Widow(er), Separated, Divorced)

2e. Race/Ethnicity:_____(Hakka, Fukienese, Mainlander)

2f. Religion:_____(None, Folk religion, Other religion)

2g. Number of children:____

2h. Education level:_____(Elementary & below, Junior high, Senior high, College & over)

2i. Residence area:_____(Name of the town/Urban, Rural)

3. Source of admission?_____(Hospital, Own home or that of a relative, Warden accommodation, Nursing home or residential home, Unknown)

4. Did the home receive a report on the resident's condition before or on admission?_____(Yes, No, Don't know)

4a. How was this information received? _____

By formal document
By word of mouth from accompanying party
By telephone
Other (specify_____)
Don't know

4b. Who provided the details? _____

Hospital ward
District nurse
Dr.
Patient's family
Other nursing home
Other (specify_____)
Don't know

5. When did the patient move into this nursing home? _____

5a. Length of stay of this patient:_____

Less than 1 month
1 month ≤6 months
6months ≤12 months
1 year ≤2 years
2 years ≤3 years
3 years or more
Don't know

5b. Did the patient ever live in this home before? _____(Yes, No, Don't know)

If Yes, how long did s/he live in here each time?

First: _____; Second: _____; Third: _____

5c. How many times was the patient hospitalized during the period in this nursing home?_____(0, 1, 2, or 3 and over)

6a. Patient's diagnosis/problems: (Please tick the appropriate)

Stroke/CVA
Diabetes

Dementia
Heart disease
Arthritis
Fracture
Hypertension
Neurological disease
Nephritic disease
COPD
GI disease
Cancer
Other (Please specify_____)

6b. Patient's physical status

Joint contraction
Hemi-paralysis
Speech disturbance
Confused
Bed sore
Pain
Coma
Paralysis
Limb amputation
Vision disturbance
Hearing disturbance
Wounds (except bed sore)
Other (Please specify_____)

6c. Patient's activity status/physical labor

Need help for activities
Self-help for most of the activities
Bedridden

6d. Mental status

Conscious
Sometimes confused/sometimes conscious
Confused all the time

7. How far have the patient's needs been met? _____

Very good
Good
OK
Not good
Bad

8. Are there any needs or activity, which is important to this patient but it is difficult to match because of any reason? (For example: no funding or lack of resources?)

_____

_____

Thank you very much for your help!

Please continue to fill in the Sheffield Joint Unit for Social Service Research (JUSSR) Assessment Schedules sheet for this patient in next page.

Dependency Level: Please fill in the Sheffield Joint Unit for Social Service Research (JUSSR) Assessment Schedules sheet

A. Self Care

Is this resident	DEPENDENCY SCORE
-bed bound/ chair bound	3
-able to get about with assistance	2
-able to get about alone with an aid	1
-able to get about alone and unaided	0
When washing, does the resident need,	
-maximum assistance	2
-some assistance	1
-no assistance	0
When bathing, does the resident need,	
-maximum assistance	2
-some assistance	1
-no assistance	0
When dressing, does the resident need,	
-maximum assistance	2
-some assistance	1
-no assistance	0
When feeding, does the resident need,	
-maximum assistance	2
-some assistance	1
-no assistance	0
When using the WC, or attending to personal toilet, does he/she need,	
-maximum assistance	2
-some assistance	1
-no assistance	0
Is this resident,	
-incontinent of urine and /or faeces	2
-incontinent of urine only (or has problems with catheter)	1
-fully continent (or has catheter functioning well)	0

B. Orientation

Does this resident understand,	DEPENDENCY SCORE
-everything you say to him/her	0
-almost everything	1
-nothing at all	2
Does he/she communicate (by any means),	
-well enough to be understood	0
-can be understood, but with difficulty	1
-cannot be understood	2
Does the resident have,	
-a serious speech problem	2

-a mild speech problem	1
-no speech problem	0
Is he/she,	
-fully aware of the surroundings	0
-partially aware	1
-unaware	2
Does he/she get confused and lose orientation,	
-always	2
-sometimes	1
-never	0
Does he/she forget things,	
-always	2
-sometimes	1
-never	0

C. Social Integration

Does this resident help out in the home,	DEPENDENCY SCORE
-often	0
-sometimes	1
-never	2
Does he/she,	
-establish good relationships with other residents	0
-has some difficulty with this	1
-has great difficulty with this	2
Is he/she,	
-always willing to do things alone	0
-sometimes willing	1
-never willing	2
Does he/she behave in a socially accepted manner,	
-always	0
-sometimes	1
-never	2
Can this resident go out,	
-alone	0
-with somebody	1

Appendix. Changes In Patient Dependency Since Admission

1. How would you describe this resident's overall dependency level?
_____(High, Medium, Low)
2. Since admission, has this resident's overall condition?
_____(Improved, Deteriorated, Remained the same)
3. Overall, after filling in JUSSR, please make a subject assessment of the 'appropriateness' of the resident's placement in a nursing home, concerning his/her physical, mental and behavior conditions/problems as a whole.
Does s/he _____for a nursing home?
(Definitely appropriate, Possibly inappropriate, Definitely inappropriate)

***ADLs (to be completed by the interviewer)
(The same form is used as was adopted in the Social Status Report for Senior Citizens, R.O.C.)
Five items are included: (Tick the items which the patient has difficulties to perform)

Bathing ☐
Dressing ☐
Continence ☐
Locomotion ☐
Feeding ☐

Part B. Questionnaire for patients in the nursing home

No._____

---to be completed by the interviewer through the interview with each patient in the sample
(Introduce the purpose of this research to each patient first before starting the interviews. State that patient is not obliged to answer the questions and any references will be strictly confidential)

Date of interview: _____/_____/_____
Time of interview: from_____ to _____
Place: _____

I would like to talk with you about your living in the nursing home, please answer the following questions

CHARACTERISTICS OF THE PATIENTS

a. Patient name:_____(No._____)
b. Age:_____(Born on Date __/Month __/Year __)
c. Sex:_____(Male, Female)
d. Marital status:_____(Single, Married, Widow(er), Separated, Divorced)
e. Race/Ethnicity :_____(Hakka, Fukienese, Mainlander)
f. Religion:_____(None, Folk religion, Other religion)
g. Number of children:____
h. Education level:_____(Elementary & below, Junior high, Senior high, College & over)
i. Residence area:_____(Name of the town/Urban, Rural)
j. How many living children do you have? _____

1. First of all, can you tell me how long have you been living here?

Less than 1 month
1 month≤2 months
2months≤3months
3months≤4months
4months≤5months
5months≤6months
6months≤9months
9months≤12months
12months or more
Don't know

CIRCUMSTANCES OF ADMISSION

2. Why did you come into this nursing home? Was there anything special that had happened? (events)

Falls
Fractures
Strokes
Heart attacks
Extreme pain from some disease such as arthritis
Increasing frailty
Bereavement (e.g. loss of spouse, loss of sibling... etc.)
Getting lost
Car accidents
Other (Please specify_____)

2a. Was this move planned (ex increasing frailty, wish to avoid burdening family...) or unplanned/crisis (ex. Death of spouse, illness, carer

unavailable)?_____(Planned, Unplanned)
2b. Are you happy with your life in living here?_____(Most of the time, Sometimes, No comment, Seldom, Never)
2c. Your current self-rated health status:_____(Good, Fair, Poor)

3. Did you come here from hospital?_____(Yes, No)
If YES, ASK:
3a. Why were you in hospital?

Chest problems
Frail
Fall
Fractured limb
Heart attack
Stroke
Bereavement
Alcohol problems
Other (specify)_____
Don't know

3a-1. How long had you been there?

Less than 1 week
1 week≤1 month
1 months≤6 months
6 months≤1 year
1 year≤2 years
2 years≤4 years
4 years≤6 years
6 years≤8 years
Don't know

IF DID NOT ENTER HOME FROM HOSPITAL, ASK:
3b. Where were you living/staying immediately before you came here?

Nursing home
Relative's home (specify)_____
Friend's home
Neighbor's home
Own home
Children's home
Residential home/Other institutions
Don't know

3b-1. How long had you been there?

Less than 1 week
1 week≤1 month
1 months≤6 months
6 months≤1 year
1 year≤2 years
2 years≤4 years
4 years≤6 years
6 years≤8 years
8 years≤10 years
10 years or more
Don't know

4. Before you moved in here what was your household composition*
4a. Were you living alone?_____(Yes, No)
If NO, ASK:
4b. How many persons in your household?_____(1, 2, 3, 4 or more)
4c. Whom were you living with?_____(Spouse only, Children or

relatives, Three generation family, Others)

INFORMAL CARE SOURCE

5. Did you need anyone of them to help or assist you?_____(Yes, No, Don't know)

If YES, ASK:

5a. Who was the person who took care of you most? (Spouse, Daughter, Son, Daughter-in-law, Son-in-law, Sister, Brother, Friends/Neighbors or Others)_____; And his/her name is:_____

5b. Did s/he (primary caregiver) live together with you or not?_____(Yes, No)

5c. What did s/he do? (Please tick as appropriate)

Functional tasks

1. Shopping
2. Cleaning
3. Cooking
4. Laundry
5. Transport
6. Odd jobs
7. Managed finances
8. Collected my pension
9. Other functional task (specify)_____
10. Everything

Personal tasks

1. Helped to bathroom/toilet
2. (Help with) Dressing
3. (Help with) Washing
4. (Help) Getting to bed
5. Feeding
6. Other personal task (specify)_____
7. Everything

6. Did you ever receive any other long term care services before moving into this nursing home?_____(Yes, No, Don't know)

6a. If YES, what was that?_____ (Home care, Community-based care, Institutional care);

6b. And for how long? _____

DECISION MAKING

7. How did you first come into this nursing home? Did you personally ask to come or did someone else suggest it?

I asked
Someone else suggested it
Don't know

7a. If ASKED, Whom did you ask? _____

7b. If SUGGESTED, Who suggested it? _____

Spouse
Children
Medical staff
Social worker
Relatives
Friends/Neighbors
Others

8. Did you talk to anyone about coming into this nursing home before any decisions were made?_____(Yes, No, Don't know)

8a. If YES, Whom did you talk to? _____

Spouse
Children
Medical staff
Social worker
Relatives

Friends/Neighbors
Others

8b. If NO, would you have liked to?_____(Yes, No, Don't know)

9. So, would you tell me <u>how</u> did you make the decision to choose living in a nursing home?
__Suggested by Dr./Nurse/Social workers(by professionals or hospital discharge plan)
__I thought I needed this kind of health service(by self)
__My family decided this for me (by family members), Who is he/she?_____
__Other (Please specify_____)

10. And, could you tell me <u>what</u> is the reason for your living here rather than staying at your own home (reasons for application to nursing home)?
Is it because
__No carer was available in my own home
__Illness in family
__I thought it is better for me to come here, as was too much of a burden for my family if I stayed at my own home
__My family arranged this for me
__Pressure exerted by family
__Other problems in family (death, social problems, financial relocation or return to work of family members)
__Inability to obtain or retain adequate hired-help
__Suggested by Dr./Nurse/Social worker (by professionals)
__Patient's preference (by self)
__Fear factors (such as fear of falling or could not manage at home… etc.)
__Other reason (Please specify_____)

11. Was there anything else other than nursing home care suggested? (Yes, No, Don't know)_____
11a. If YES, What? _____

12. Would any extra help or services, of any kind, have made it possible for you to carry on living at home? (Yes, No, Don't know)_____
12a. If YES, What? _____
12a-1. Why wasn't this extra help/service arranged?
_____

13. Do you think you understood what the nursing home was before you came here?_____(Yes, No, Don't know)
13a. Do you think you had enough <u>discussion</u> about coming into nursing home care before you came here? (Yes, No, Don't know)_____

14. Do you think you yourself had enough <u>control</u> over the decision about whether to come into nursing home care or not? (Yes, No, Don't know)_____

15. So, may I confirm that it was <u>your</u> decision (to come into nursing home)?(Yes, No)_____
16. And, who do you think was the most influential person in decision-making process?
Myself(patient him/herself)
Spouse of the patient
Children of the patient
Other families
Physician
Nurse
Social worker
Consultant/Therapist
Friends
Others
17. Did you ever feel under any pressure to come into a home, either from a professional or from a

friend or relative? _____(Yes, No, Don't know)

18. Did you go into nursing home more quickly than you would have liked? (Yes, No, Don't know)_____

19. Do you think nursing home was the best solution to your needs? (Yes, No, Don't know)_____

Now, I'd like to talk about how you came into <u>this</u> particular home.
20. Who actually arranged for you to come in here?
Spouse
Children
Medical staff
Social worker
Relatives
Friends/Neighbors
Others

21. Did you have any <u>choice</u> of home? _____(Yes, No, Don't know)

22. How did you first hear about this home? (ex. advertising, from professionals or others)
From professionals
From families
From advertisement

23. I'd just like to check, before coming into this home as a resident, did you or your family ever visit it? (Yes, No, Don't know)_____

24. So, could you tell me the reason <u>why</u> you are living in <u>this</u> particular nursing home? Is it because
__Suggested by Dr./Nurse (Recommended by physician or other health care professionals)
__Suggested by Social worker(recommended by social care professionals)
__Location (convenient: ex. the nearest one to my own home)
__Reckon this nursing home is better, because_____(good care available, peaceful, type of building, specific facilities, staff attitudes or other reasons)
__Relatives/Friends introduced this home to me(Recommended by others)
__Fees (ex. It is cheaper compared with other homes...etc.)
__Had friends living in this nursing home
__Only knew this one or No other place to which to apply
__It is all family's arrangement, I know nothing about it

Now, What about <u>ACTUALLY LIVING HERE</u>....
25. Is living in a nursing home better or worse than you thought it was going to be?_____(Better, Worse, Don't know)
25a. If BETTER OR WORSE, In what way?
_____
_____

25b. Is there anything you particularly like about living in this nursing home?_____(Yes, No, Don't know)
25b-1.If YES, What?
_____
_____

25c. And is there anything you don't like about living in this home? _____ (Yes, No, Don't know)
25c-1.If YES, What?
_____
_____

26. Who visits you most often in your family?_____(Spouse, Children, Grandchildren, Relatives, No one)
26a. How often?

Everyday
Every other day
Once or twice a week
1 week≤ 2 weeks
2 weeks ≤ 1 month
1 month≤ 2 months
2 months≤ 6 months
6 months or more

27. So, overall, are you satisfied with services in this home?

Very satisfied
Satisfied
Fairly satisfied
Neither satisfied nor dissatisfied
Fairly dissatisfied
Dissatisfied
Very dissatisfied
Don't know

PAYING FOR CARE

Now, I'd like to ask you about how you pay for your fees in this nursing home.
28. Do you know how much per month do you pay to stay in this nursing home?_____(Yes, No)
29. Who (/In what way) pay for your nursing home fees? _____

Son
Daughter
Spouse
Myself
Combination of families
Other (Please specify_____)

30. Do you have any help from the government towards the charges for your accommodation here? (Yes, NO, Don't know)_____
30a. If YES, please specify (what are they?):

_____
_____

Finally, I'd like to ask you about your main sources of INCOME when you lived at home.
31. Were you employed? *:_____(Yes, No)
31a. Previous occupation: What work did you do before you retired? Were you

Employer/owner
Government employee
Employee of private company
Unpaid family worker

31b. Spouse's previous occupation: What work did your husband/wife do before s/he retired?

Employer/owner
Government employee
Employee of private company
Unpaid family worker

32. Could you tell me if you had any of the following: (Choose three items as maximum)

State pension
Social security
Occupational income/pension
Private pension
Investments/Rents

Occupational income/pension of spouse
Savings of myself or spouse (including selling assets)
Given by children (including son/daughter-in-law)
Helped by relatives/friends
Other insurance, apart from NHI
Other (Specify)_____
Don't know

32a. And, which of them is the most important (main) income source?_____

33. So, could you tell me your current personal income per month?

No income
less than 10000
10000≤20000
20000≤30000
30000≤50000
50000≤70000
70000≤100000
100000 or over
Don't know

34. Do you know the household income of your family per month?

No income
less than 10000
10000≤20000
20000≤30000
30000≤50000
50000≤70000
70000≤100000
100000 or over
Don't know

* Immediately before institutionalization

Part. C. Questionnaire--- carer's (key family's) view **No._____**

---to be completed by the primary carer of the patient or the family member who was most involved in the patient's nursing home entry.

According to our understanding, you are the key person or primary caregiver for the patient, I would like to interview you about the patient living in the nursing home, please answer the following questions.

Date of interview: _____
Time of interview: from to
Place: _____

CHARACTERISTICS OF THE PATIENT

a. Patient name:_____
b. Age:_____(Born on Date____ /Month____ /Year____)
c. Sex:_____(Male, Female)
d. Marital status:_____(Single, Married, Widow(er), Separated, Divorced)
e. Race/Ethnicity: _____(Hakka, Fukienese, Mainlander)
f. Religion: _____(None, Folk religion, Other religion)
g. Number of children:____
h. Education level:_____(Elementary & below, Junior high, Senior high, College & over)
i. Residence area:_____(Name of the town/Urban, Rural)
j. How many living children does the patient have?_____

YOUR CHARACTERISTICS

k. Sex:_____
l. Age: _____
m. Marital status:(Single, Married, Widowed, Separated, Divorced)_____
n. Number of children_____(0, 1, 2, 3, 4 or more)
o. Education level:_____(Elementary & below, Junior high, Senior high, College & over)
p. Your relationship with the patient:_____(Spouse, Children, Son/Daughter-in-law, Relatives, Neighbors, Friends, Hired helpers)

* If the interviewee is the patient's child, ask (siblings):

q. How many sisters and brothers do you have? _____

* Is this interviewee the carer of the patient? _____(Yes, No)

1. First of all, can you tell me how long this patient has been in this nursing home?

Less than 1 month
1 month ≤ 2 months
2 months ≤ 3 months
3 months ≤ 4 months
4 months ≤ 5 months
5 months ≤ 6 months
6 months ≤ 9 months
9 months ≤ 12 months
12 months or more
Don't know

CIRCUMSTANCES OF ADMISSION

1a. Why did s/he go into nursing home care? Was there anything that happened (events)?

Falls
Fractures
Strokes
Heart attacks
Extreme pain from some disease such as arthritis
Increasing frailty
Bereavement (e.g. loss of spouse, loss of sibling... etc.)
Getting lost
Car accidents
Other (Please specify_____)

1b. Was this move planned (ex increasing frailty, wish to avoid burdening family...) or unplanned/crisis (ex. Death of spouse, illness, carer unavailable)?_____(Planned, Unplanned)

2. Did s/he go into nursing home care from hospital? (Yes, No)_____

2a. If YES, How long was s/he in hospital? _____

Less than 1 week
1 week≤2 weeks
2 weeks≤3 weeks
3 weeks≤4 weeks
1 months≤3 months
3 months≤6 months
6months≤1 year
1 year ≤ 2 years
more than 2 years
Don't know

2a-1 Why was s/he in hospital? _____

Chest problems
Frail
Fall
Fractured limb
Heart attack
Strokes
Bereavement
Alcohol problems
Other (specify)_____
Don't know

2b. If NO, where was this patient living/staying immediately before s/he came here? ___

Nursing home
Relative's home (specify)_____
Friend's home
Neighbour's home

Own home
Children's home
Residential home/Other institutions
Don't know

2b-1. How long had s/he been there?

Less than 1 week
1 week≤1 month
1 month≤6 months
6 months≤1 year
1 year≤2 years
2 years≤4 years
4 years≤6 years
6 years≤8 years
8 years≤10 years
10 years or more
Don't know

CARER RESOURCE

3. Did s/he need care before coming here?_____(Yes, No, Don't know)
If YES, please answer the following questions.
If NO, please skip to question number 9.
4. Did the patient live with you when you took care of him/her? (Yes, No)_____
4a. If YES, How long did you and this patient live together?

Less than 1 week
1 week≤1 month
1 month≤6 months
6 months≤1 year
1 year≤2 years
2 years≤5 years
5 years≤10 years
10 years plus
Married/always lived together
Don't know

4b. If you did NOT live with this patient when you took care of him/her, how far away from this patient did you live?

Up to 1/2 mile
1/2 mile≤1 mile
1 mile≤5 miles
5 miles≤10 miles
10 miles plus
Don't know

5. For how many years did you take care of this patient before he/she moved into this nursing home? _____

Less than 1 week
1 week≤1 month
1 month≤6 months
6 months≤1 year
1 year≤2 years
2 years≤3 years
3 years≤4 years
4 years≤5 years
5 years≤10 years
10 years plus
Don't know

6. Did you help this patient regularly, sometimes or only in an emergency before s/he moved into the nursing home? (regularly, sometimes, in an emergency)_____
7. What did you do for the patient?

Functional tasks

Shopping
Cleaning
Cooking
Laundry
Transport
Odd jobs
Managed finances
Collected pension
Other functional (specify)_____
Everything

Personal tasks

Helped to bathroom/toilet
(Help with) Dressing
(Help with) Washing patient
(Help) Getting to bed
Feeding
Other personal (specify)_____
Everything

8. Did anyone else apart from you help this patient or assist you with the patient in any way?_____(Yes, No, Don't know)
8a. If YES, Who? _____
8b. Please comments:

_____

DECISION MAKING

Now, some questions about how this patient came into the nursing home and how the decision was made.

9. How did this patient first go into nursing home care. Did s/he ask to go or did you ask if s/he could go or did someone else suggest it? (This patient asked, You suggested it, Someone suggested it, Don't know)_____
9a. If THE PATIENT/YOU ASKED, Whom did the patient/you ask?

Spouse
Children
Medical staff
Social worker
Relatives (including brothers and sisters)
Friends/Neighbors
Others

9b. If SUGGESTED, Who suggested it?

Spouse
Children
Medical staff
Social worker
Relatives (including brothers and sisters)
Friends/Neighbors
Others

10. So, Who is the most influential person in the decision-making process that this patient should go into a nursing home?

Patient himself/herself
Spouse of the patient
Children of the patient
Other family members
Physician
Nurse
Social worker
Consultant/Therapist
Friends

Others (Please specify_____)

11. Did you talk to the patient about going into a nursing home before any decision was made?_____(Yes, No, Don't know)

12. And did you talk to anyone else about the patient going into nursing home care before any decisions were made? (ex. professionals, relatives, friends...)_____(YES, NO, Don't know)

12a. If YES, Who did you talk to? _____

12b. Did you feel any pressure in this decision making process? _____ (YES, NO, Don't know)

12b-1. Please comment:_____

13. Was anything else other than nursing home care suggested? (Yes, No, Don't know)_____

13a. If YES, What? _____

14. Were there any other alternatives (extra help or service) you could have taken for the patient other than nursing home entry? (Yes, No, Don't know)_____

14a. If YES, What? _____

14a-1. Why wasn't this extra help/service arranged?

_____

14b. If NO, Why did you think there was no alternatives/options at all?

_____

15. Do you think the patient had enough <u>discussion</u> about going into nursing home care before s/he went? _____(Yes, No, Don't know)

16. Do you think the patient had enough <u>control</u> over the decision about whether to go into nursing home care or not? _____(Yes, No, Don't know)

17. According to our understanding, you are the key person or primary caregiver for the patient (or potentially, you will be his/her caregiver if s/he needs help), were you also the main one involved in the decision-making process for this patient moving to the nursing home?____(Yes, No)

18. Could you tell me the factor/reason for your (and/or the patient's family) choosing nursing home service for this patient (reason for this decision)? Is it because

__Suggested by Dr./Nurse/Social worker(by professionals)
__Hospital discharge plan
__The patient thinks s/he need this kind of health service(by patient)
__No caregivers available in patient's own home
__Illness in family
__It is too much burden for the families if the patient lives at home(even if carer is available)
__Other problems in family (death, social problems, financial relocation or return to work of family members)
__Inability to obtain or retain adequate hired-help

__Decision made by family members(i.e., arranged by spouse, children)
__Planning ahead, getting set in anticipation of future needs of patient

__New specific health problem in patient
__Worsening continuation of specific health problem in patient
__Gradual physical deterioration, increasing frailty, old age, in patient
__Mental deterioration, dementia in patient
__Fear factors
__Other reason (Please specify_____)

19. Do you think that nursing home care was the best solution to this patient's needs? (Yes,

No, Don't know)_____

20. And do you think that nursing home care is the best solution to <u>your</u> needs? (Yes, No, Don't know)_____

Now, I'd like to ask you about how the patient went into <u>this particular home</u>.
21. Who actually <u>arranged</u> for this patient to go in there?

Spouse of the patient
Children of the patient
Medical staff
Social worker
Relatives
Friends/Neighbors
Others

22. Did the patient have any <u>choice</u> of nursing home? (Yes, No, Don't know)_____
22a. If YES, Why was this nursing home chosen?

_____

22b. If NO, Why not?

_____

23. And, why do you (and/or the patient's family) choose <u>this</u> particular nursing home for him/her? Is it because

__Suggested by Dr./Nurse(Recommended by physician or other health care professionals)
__Suggested by Social worker(recommended by social care professionals)
__Location (convenient: ex. the nearest one to my own home)
__Reckon this nursing home is better, because_____(good care available, peaceful, type of building, specific facilities, staff attitudes or other reasons:_____)
__Relatives/Friends introduced this home to me(Recommended by others)
__Fees (ex. It is cheaper compared with other homes...etc.)
__Had friends living in this nursing home
__Only knew this one or No other place to which to apply
__Don't know

24. Before the patient went into the nursing home as a resident, did you ever visit this nursing home? (Yes, No, Don't know)_____

25. I'd like to check, do you visit the patient? _____(Yes, No)
25a. How often?

Everyday
Every other day
Once or twice a week
1 week≤2 weeks
2 weeks≤1 month
1 month≤2 months
2 months≤6 months
6 months or more

26. Do you think that the patient living in a nursing home is better or worse than you thought it was going to be? (Better, Worse, The same, Don't know)_____; and why?_____
27. Have your views of nursing home care changed since the patient has been living in the nursing home? (Yes, No, Don't know)_____
27a. If YES, In what way?

_____

27b. If NO, please comment:

_____

28. Overall, How satisfied or dissatisfied are you with the home?

Very satisfied
Satisfied
Fairly satisfied
Neither satisfied nor dissatisfied
Fairly dissatisfied
Dissatisfied
Very dissatisfied
Don't know

PAYING FOR CARE

29. Do you know what is the fee per month for the patient living in this nursing home?

_____

30. And how the patient pays (or in what way)? Is it paid by

Patient's sons
Patient's daughters
Patient's spouse
Patient himself/herself
Combination of families
Other methods(please specify:_____)

31. Does the patient have any support from the government towards the charges for their accommodation in the home?(Yes, No, Don't know)_____

Now, a few questions about looking after the patient.
If you WERE a carer of this patient, please answer the following questions.
If NOT, please skip to question number 41.

32. When you first started looking after the patient, did you feel under pressure to do so? (Yes, a little, No, Don't know) _____

33. Was this care a burden for you?(Not at all, No burden, Feel burden, Very much so)

_____

34. Did you feel your health status changed after taking care of this patient? (self-rated health status)_____(Good, The same, Getting worse, Don't know)

35. Did you feel getting any help from the community (e.g. anyone else or any other group)?_____(Yes, No)
36. And do you think you had enough support from the professionals? (Yes, No)_____

37. If the patient had to stay at home now(due to some reason, for example, the nursing home available is too far away or the fee is too high and not affordable...etc.) and had to be taken care of at home, is there any difficulty to do so?_____(Yes, No)
37a. If YES, What is the biggest problem?
__The patient is too frail/ill, and needs professional care
__There is lack of suitable housing (e.g., no lift or escalator) for the patient
__The patient is not easy to get along with (i.e., bad temper, cognitive impairment)
__No caregivers available(i.e., because the carer has to participate working force or not feeling well)
__Too much burden in carer's own home, so can not take care of the elderly at the same time
__Other (Please specify_____)

38. According to your experience of being a caregiver, would you be a caregiver again if necessary? _____(Never again, Prefer not to, No comment, I will, No problem at all)

39. In your case, if you can choose, which is the best way you would prefer to take care of this patient?
__One of the family member suspend their job or temporarily leave school to take care of

him/her
__Send the patient to day care centre/institution daily and bring back home at night
__Send the patient to institution full time and visit him/her regularly
__Hire care-helper to take care of the patient at home
__Ask relatives/friends/neighbors for help to take care of the patient
__Others (Please specify_____)
__Don't know

40. In this case, if economic factors were not a problem (i.e., paid by National Health Insurance or the government), which would be the best way you would prefer to take care of this patient?
_One of the family member suspend their job or temporarily leave school to take care of him/her
_Send the patient to day care centre/institution daily and bring back home at night
_Send the patient to institution full time and visit him/her regularly
_Hire care-helper to take care of the patient at home
_Ask relatives/friends/neighbors for help to take care of the patient
_Others (Please specify_____)
_Don't know

ASK ALL:
41. Do you think the government have any responsibility (obligation) to take care of the elderly people? _____(Please choose one number between 1 and 10 you think appropriate to represent it's intensity)
1----------5----------10
families are totally responsible
government and families are equally responsible
the government is totally responsible

CAREGIVER'S JOB
42. Are you employed now?_____(Full time, Part-time, Non-employed)

42a. Were you a full time or part-time worker apart from being a caregiver while you took care of this patient?_____(Full time worker, Part-time worker, Non-employed, No care experience)

43. Have you ever given up work or changed your working pattern in any way because of the patient? (ex. location, working hours...) _____(Yes, No)

44. Is your husband /wife employed now?_____(Yes, No)

45. Could you tell me your household income per month?
No income
less than 10000
10000≤20000
20000≤30000
30000≤50000
50000≤70000
70000≤100000
100000 or over

Finally, if you are spouse or adult child of the patient, please continue to fill in the University of Wisconsin-Family Assessment Caregiver Scale (UW-FACS) in the next page.

Thank you very much for your help!

UW-FAMILY ASSESSMENT CAREGIVER SCALE (Adult Child Version)

The following questions focus on your family relationships. For these questions, FAMILY refers to your brothers, sisters, and other adult relatives involved with your parent's care. After reading each statement, please choose the number that describes the degree to which you agree or disagree with the statement.

Strongly Disagree	Disagree	Neither Agree/ Disagree	Agree	Strongly Agree
1	2	3	4	5

1. While growing up, I never seemed able to please my parent(s).
2. When the need arises, family members are willing to help with my parent's care.
3. Some family members have a difficult time accepting help from people outside the family.
4. Everyone in my family knows what is expected of them in helping care for my parent.
5. In my family, it feels like some family members are always teaming up against others in the family.
6. While growing up, it bothered me that my parent(s) helped out some family members more often than others.
7. When we have problems with my parent's care, we are pretty good at coming up with different ways to solve them.
8. Family members are able to accept help easily from one another.
9. When we have a disagreement, we are usually able to talk things out.
10. Family members seem to understand the difficulties of caring for my parent.
11. I feel caught between responsibilities to my spouse/partner and children, and responsibilities to my parent(s).
12. Family members generally ask one another for their opinions about my parent's care.
13. Family members criticize one another.
14. Some family members deny that a problem exists for my parent.
15. Most family members do their fair share in helping care for my parent.
16. Family members are considerate of one another's needs.
17. Some family members refuse to speak to one another.
18. When I needed help in the past, I could count on my parent(s).
19. There is still tension in my family about things that happened years ago.
20. When a problem comes up about my parent's care, family members consult one another before making a decision.
21. Looking back over my childhood, I think my parents did a good job raising me.

Thank you very much!

UW-FAMILY ASSESSMENT CAREGIVER SCALE (Spouse Version)

After reading each statement, please choose the number that describes the degree to which you agree or disagree with the statement.

Strongly Disagree	Disagree	Neither Agree/ Disagree	Agree	Strongly Agree
1	2	3	4	5

1. While our children were growing up, I never seemed able to please my spouse.
2. When the need arises, my children are willing to help with my spouse's care.
3. Some family members have a difficult time accepting help from people outside the family.
4. Everyone in my family knows what is expected of them in helping care for my spouse.
5. In my family, it feels like some family members are always teaming up against others in the family.
6. While our children were growing up, it bothered me that my spouse helped out some of our children more than others.
7. When we have problems with my spouse's care, we are pretty good at coming up with different ways to solve them.
8. Family members are able to accept help easily from one another.
9. When we have a disagreement, we are usually able to talk things out.
10. Family members seem to understand the difficulties of caring for my spouse.
11. I feel caught between responsibilities to my spouse and responsibilities to my children and grandchildren.
12. Family members generally ask one another for their opinions about my spouse's care.
13. Family members criticize one another.
14. Some family members deny that a problem exists for my spouse.
15. Most of my children do their fair share in helping care for my spouse.
16. Family members are considerate of one another's needs.
17. Some family members refuse to speak to one another.
18. When I needed help in the past, I could count on my spouse.
19. I still feel tension with my spouse about things that happened years ago.
20. When a problem comes up about my spouse's care, family members consult one another before making a decision.
21. Looking back, I feel on the whole that we had a good marriage.

Thank you very much!

APPENDIX C. Letters

I. Letter to the proprietors

Dear officer-in-charge (proprietor),

This is a study for all the registered nursing homes in Taiwan in order to present the profile of the nursing homes, their patients and the proprietors. It is hoped to explore the possible demand and supply factors that influence the decision of elderly people and their families in the admission process. Registered nursing homes represent a orienting direction in nursing home industry. The information is important for both the consumers, the providers and the government and this study cannot be fulfilled without your help.

Briefly, this study will contain two parts: first, you need to fill in a questionnaire about basic information of your home and second, the interview with the proprietor, and the patients and their families will be arranged at your most convenience. Sincerely hope you can take part and share your precious experience and opinions. The confidentiality is assured for all the participants.

In order to know your willingness to participate in this study, please tick "YES" or "NO" box below and send this letter back as I can further contact with you about the study. Please don't hesitate to contact with me if you need further information. ***Thank you very much!***

Sincerely Yours,

Li-Fan, Liu
Government sponsored student
(Ministry of Education, Executive Yuan, Taiwan, R.O.C.)
in King's College London, UK.
TEL/FAX: 06-2756750 (day/night)

Name of your home: _____

Willingness to take part in the study:

YES ❑

NO ❑

II. Letter to the elderly people in sample nursing homes

Dear ###,

"Nursing home" is a brand new service in Taiwan.
I am conducting a study about elderly people in the nursing home, especially from the view of elderly people and their families.
I would like to have a little chat with you to know the situation in your admission process. This mainly includes how and why you came into the home, the decision which you or your families made and the life you spent in this home. This interview will take about 30 minutes on average. The information is important for our government and care providers to provide a better long-term care service for our elderly people and in hope that the development of nursing home care in Taiwan can match what you really need.

This study can not fulfill without your help, however, you are not obliged to answer the questions and any references you give will be strictly confidential. In order to know your willingness to be interviewed, please tick "YES" or "NO" box below or tell your nurse, and s/he will let me further contact with you if you wish to take part and arrange the interview at your most convenience.

Thank you very much!

Sincerely Yours,

Li-Fan, Liu
Government sponsored student
(Ministry of Education, Executive Yuan, Taiwan, R.O.C.)
in King's College London, UK.

Your name: _____

Willingness to be interviewed:

YES ❑

NO ❑

III. Letter to the key families

Dear Mr./Mrs./Ms. ###,

"Nursing home" is a brand new service in Taiwan.
I am conducting a study about elderly people in registered nursing homes, especially from the view of elderly people and their families.
I would like to know the situation of your elderly relative in the admission process, mainly including how and why s/he came into the home, the decision which you or your families made and your opinion about the home. The interview will take about 40 minutes on average. In this development stage of long-term care in Taiwan, this information is important for our government and care providers to provide a better long-term care service for our elderly people and in hope that the development of nursing home care in Taiwan can match what we really need.

Information obtained from the nursing home shows, you may be the key person who involved in the nursing home admission process. I need your help to identify the carer (if any) of your elderly relative and hope to arrange the interview at his/her most convenience. "Carer" which I mean here is defined by 'any adult (aged 16 and over) who ever had the caring responsibility for this elderly relative currently living in nursing home'. If there was no one who had ever cared for the elderly patient before nursing home entry, the key person who mostly involved in is hoped to be interviewed instead as s/he could know about the decision process clearer.

This study can not fulfill without your help, however, you are not obliged to be interviewed and any references you give will be strictly confidential.
In order to identify the carers/key families and to know whose willingness to be interviewed, please answer the question below and send this letter back as I can further contact with the carers/key families if s/he wish to take part and arrange the interview at your most convenience.
Please don't hesitate to contact me at 06-2756750 if you need further information. ***Thank you very much!***

Sincerely Yours,

Li-Fan, Liu
Government sponsored student
(Ministry of Education, Executive Yuan, Taiwan, R.O.C.)
in King's College London, UK.

Please answer the following questions:

1.Patient's name: _____
2.Your relationship to the patient in nursing home: _____
3.Any family member who took care of the patient before his/her entry to nursing home:

❑ YES, Who is the person?
Name: _____; Address: _____;
Relationship to the patient: _____
❑ NO.

4.Carer/key family's willingness to be interviewed:

YES ❑
NO ❑

SCHOOL OF SOCIAL WORK

[IV. Letters of Dr. Greenberg]

UNIVERSITY OF WISCONSIN - MADISON

March 2, 1998

Miss Li-Fan Liu
C10-1 No. 61 Shaw-Tong Road
Tainan, 70428
TAIWAN

Dear Ms. Liu:

Per your email, I am sending you a copy of the Spouse version of the UW-FACS instrument. You have my permission to use the instrument in your research.

Please let me know if I can be of any further assistance.

Sincerely,

Jan Steven Greenberg, Ph.D.
Associate Professor

enclosure

ions: 608/263-3660
rogram: 608/263-4813

1350 University Avenue
Madison, Wisconsin 53706–1510

• Director: 608/262-3561
• FAX: 608/263-3836

Ps. Scoring instructions of the UW-FACS

School of Social Work
University of Wisconsin
1350 University Ave.
Madison, WI 53706

Attached are the scoring instructions along with the spouse version of the UW-FACS.

Before calculating the scores, you will need to recode selected questions as indicating on the scoring key. Recoding means that certain scores are reversed coded. For example, question 1 has to be recoded. If an individual rated it as a 4, you would change the rating to a 2. Or if the individual rated it a 1, you would change the number to a 5. This is necessary so that all of the questions are scored in the same direction and a high score always indicates higher family functioning.

After you have recoded the appropriate questions, you simply add the items to get a total score, with a higher number representing a higher functioning family.

If a caregiver skipped over one or two of the questions, I recommend the following procedure. Add up the scores on the questions that the caregiver did complete and divide this number by the number of questions that the caregiver responded to. This will give you a mean score for those items that the caregiver answered. The mean score will range from 1 to 5. To get a total score that is comparable to the score of respondents who answered every question, multiply the mean score by 21. For example, if a caregiver skipped 2 questions, I would add the scores on the 19 questions that he or she respond to and then divide this number by 19. This gives you a mean score for each item. To get a total score, you multiply this mean score by 21.

In addition to a total score, you can calculate subscale scores. For examples, if you add up items 10, 13, and 16, you obtain a score on the validation subscale which indicates to what extent other family members validate the caregiver in his or her role. The questions that pertain to other subscales are listed on the scoring instructions.

If you have any questions about scoring the questionnaire, please feel free to give me a call (608) 263-4574. I would very much appreciate hearing whether the scale works out for you.

Sincerely,

Jan Greenberg, PhD
Associate Professor

APPENDIX D. Findings of the pilot study

Supply side

S-1. Characteristics of the home

This nursing home where the pilot study was conducted is a private nursing home. It is a registered 58-bed home and the occupancy rate is around 70%. This home had been registered for less than 3 years as is the case for most of the nursing homes in Taiwan. This 8-floor building was not purpose-built and it cost about NT$ 20 millions to refurbish and set up. Although this research is not primarily concerned with assessing the quality of care, items chosen by a home can be rough indicators of whether a home was providing more than just the basic facilities (Bartlett et al., 1987). This nursing home with 6 bedrooms included a dining room, sitting rooms, TV point in bedrooms and one physical therapy room. Two physiotherapists are available. Each bedroom was for 6-8 people and the biggest room could accommodate 10 people. This nursing home provided radios and mobile phones on each floor for their patients. Day outings and transport were also available. A choice of menu was not offered in this nursing home because it was thought that patients needed only simple food and a part time nutritionist chose the meals for the residents.

This home varied its fees within each category of dependency level rather than the category of rooms. It was thought that the degree of the nursing care required by the patient must have a bearing on the level of fee charged, so that very incontinent or senile patients with life sustaining treatment (e.g., catheterlization, cystostomy tube, tracheotomy set), for example, might be asked to pay more. Incontinence pads, urine bags and other personal hygiene materials were charged as an extra. So, the price ranged from NT$ 25000 to NT$ 35000. The average price for patients was often rounded up to $NT 40000. The proprietor stated that the market level was the most important factor in determining fees. Because of the high cost of building in Taiwan, the proprietor claimed that with this price level it would be impossible to achieve a financial balance in the short term.

This nursing home employed 41 members of staff including 8 qualified nurses and 20 nurse aids as well as other ancillary staff. The proprietor herself was a teaching staff of a nursing college and member of the Chinese nursing society.
The main five medical problems of the patients in this home were: CVA 54.0%; Dementia 20.4%; DM 13.6%; Hypertension 6.8%; Heart disease 4.5%.

S-2. Proprietor's view about the nursing home industry

1) The proprietor of this nursing home was both the owner and the officer-in-charge.
2) Running situation: The occupancy rate of the nursing home was about 70%; the personnel cost was about 70% of the main expenses for running a nursing home. It was the main part of the expense.
3). The motives of this proprietor for investing in a nursing home in K city came from her personal background and interest. Nursing is her profession and establishing a nursing home was a sort of new creation and challenge in Taiwan. She tried to build a model of nursing home care in Taiwan. Although it was hard when there were hardly any regulations about nursing homes then, she said that it was worth fulfilling her ideal. She thought that nursing home in Taiwan were inevitable. Fortunately, she got a government grant otherwise the cost for setting up a nursing home in Taiwan is very high because of the high cost of the buildings especially in cities.
4) In terms of the factors that she reckons will influence a proprietor's willingness to invest in a nursing home, the support from the government (including the subsidy[1] and supervision), the regulation of the many unregistered nursing homes and the poor referral system from hospital to nursing homes were most important.
5) The main problem she encountered in running a nursing home was the staff. It was very difficult to hire qualified nurse-aids. The salary of a well-trained nurse-aid in a nursing home is about NT$

[1]The Taiwan government encourages the establishment of nursing homes in each county. Under current legislation, doctors can get a 80% no-interest loan from the Department of Health for establishing a nursing home.

30000/per month. It is much lower than that if the nurse aid was hired as personal-helper either in hospitals or in elderly person's own home. Nursing help from abroad such as from the Philippines and Malaysia, therefore, is popular. On the other hand, the lack of a discharge plan in hospitals in Taiwan leads to problems. Commission had to be paid to the brokers by nursing homes when the patient was introduced and sent to the nursing homes. Related problems exist. The proprietor suggested that an information centre which can link the demand and supply information between the patients, their families and the long-term care resources seems critical. The elderly patients and their families can then get information.

6) National Health Insurance(NHI) has a leading economic power in Taiwan's health care system. According to current policies, the subsidization of those patients who stay more than 30 days in hospitals is decreased gradually until it becomes nil for patients who stay longer than 180 days. They have to be discharged either to the extended care facilities (ECF), the nursing/residential homes or go back to their own homes. Therefore, the NHI policies are affecting the development of long-term care in Taiwan. The proprietor admitted that the NHI will be the biggest impact on the nursing home industry. She suggested that the government should help the establishment of the information centres in local health authorities as mentioned above. The government should also govern the NHI bureau to lower the subsidization level in acute hospitals reasonably in order that patients can be released from hospitals to long-term care system properly. In the meantime, those savings in acute care system can help the development of long-term care. The hope is that this puts the right person in the right place at the right time.

Demand side

In this nursing home, 22 of the residents were male and 23 were female at the time of investigation. The youngest resident was 52 and the oldest 104 with the mean age 76 years. The mean age of females was 76 and males 77 years. Because the research is focused on the patients aged 65 and over, the patients under aged 65 were excluded. The sample size of this pilot study was 30 which were chosen by the random sample table according to the bed numbers in this nursing home.

The results are as follows:

(In the following statistics, numbers do not always add up to 100 because of rounding.)

D-1. Characteristics of this sample of 30 residents (aged 65+)

Response rate

Among this sample of 30 residents, there were 11 lucid patients who could be interviewed. Another 17 patients were totally bed bound and confused and the other 2 patients were difficult to communicate with because one patient was partially confused and the interview could not be finished; the other was unable to speak. Therefore, in these cases, only questionnaire part A: basic information and part C: carer's interview were undertaken.

In this pilot, 15 carers were interviewed. Among the other 15 carers who could not be interviewed, the reasons were: 1) eight refused; 2) three were abroad; 3) four could not be reached after tracing by telephone.

Demographic

Mean age: 78.00 (SD=+8.79)

Sex ratio: 1:1 (50% male and 50% female)

Marital status	
Married	16(53%)
Widow(er)ed	14(47%)
Race/Ethnicity*	
Fukienese	5(45.5%)
Mainlander	6(54.5%)

(* In this pilot, Race/Ethnicity was only asked in the questionnaire to patients, so only 11 lucid patients who were interviewed were investigated. This question was then added to the basic information questionnaire in the main study.)

Potential availability of social support*

Household size/living arrangement	
2 persons	2(18%)
3 persons	2(18%)
4 persons	2(18%)
5 persons	2(18%)
6 persons	1(9%)
missing	2(18%)

Number of children: mean=3.73 (SD=1.49)

(* In this pilot, household size was again only asked in the questionnaire to patients, so only 11 lucid patients who were interviewed were investigated. This question was then added to the basic information questionnaire and carer's interview questionnaire in the main study.)

Number of living children: This question was tried but caused offence to some and not all were asked it. However, it is an indicator of family resources and it was decided that it should be explored in the main study. This question would be put in the carer's interview questionnaire instead.

Socio-economic indices

Family income

None	1(9%)
NT$30000-40000	1(9%)
NT$ >50000	2(18%)
Unknown	7(64%)

Education

primary school	4(36%)
secondary school	1(9%)
high school	1(9%)
college and over	5(46%)

Physical health status

Source of admission

hospital	11(37%)
home	18(60%)
unknown	1(3%)

Dependency level(JUSSR)

high (over 20)	15(52%)
medium (11-20)	5(17%)
low (1-10)	4(14%)

ps. there were 6 missing data of the patients' dependency level because their JUSSR sheet did not be completed by their primary nurse.

D-2. Characteristics of carers

15 carers of the patients were interviewed in this pilot study.

Demographic

Age: 59 (mean); 47 (median with the highest: 80; the lowest: 28)

Gender: 1 male; 14 female (93%)

Relationship to elders

spouse	5(33%)
child	10(67%)
relatives	0(0%)

Marital status

married	11(73%)
not married	4(27%)

Employment status

full-time	8(53%)
part-time	0(0%)
not employed	7(47%)

Health status	
good	0(0%)
OK	7(47%)
poor	8(53%)

D-3. Family characteristics

Family income	
no income	2(13%)
NT$30000<50000	3(20%)
NT$50000<70000	3(20%)
NT$100000 and over	7(47%)
Number of family members	
1(single)	4(27%)
3	1(7%)
4	6(40%)
5	4(27%)

D-4. Caregiving involvement

Before the elderly person came into the nursing home, 10 (67%) carers (respondents) helped their elderly relative regularly; while 4 (27%) of them helped them sometimes and another 1 (7%) of them helped them only in an emergency.

In terms of the functional task, 72.7% of the carers (respondents) had done everything for the patients before s/he moved into nursing homes. These functional tasks include shopping, cleaning, cooking, laundry, transport, odd jobs and managing finance... etc.. There was one carer who only shopped for her father before he moved into the nursing home because of a car accident.

In terms of personal tasks, 14 (93%) respondents in the pilot study did everything. These personal tasks included helping to toilet, help with dressing, washing, helping getting to bed... etc..

D-5. The caring role

- Of the visiting relatives, the most frequent visitors were children of the patients (73%) and followed by spouses (18%). The other 9% were other relatives/friends.
- Visiting pattern of families: on average, families came to visit their elderly relative every other day (mean=16.5 times/per month, SD=12.31; the maximum=30, the minimum=3)
- Perceived burden: 86.7% of the respondents felt being a carer was a burden or very much of a burden.
- Family Function Scale (21-105): 74 (mean with the highest 87, the lowest 54)
- Family obligation (1-10): 86.7% of the respondents felt that the government should take more responsibility for the care of elderly people instead of families

D-6. Decision making process

D-6-1. From the carers' investigation

Event that triggered the entry	
Fall	4 (27%)
Stroke or heart disease	6 (40%)
Bed sore	1 (7%)
Other (car accidents, after surgery)	4 (27%)
Who was the main one involving decision about entry to the nursing home?	
Patient's spouse	5 (33%)
patient's son	4 (27%)
patient's daughter	6 (40%)
Why (What is the problem for the patient to stay at his own home?)	
Patient is too much frail to stay at home	5 (33%)
No suitable housing	1 (7%)
Patient does not get along easily with families	1 (7%)
No carer is available (or carer is also in bad health)	7 (47%)

Too much burden in carer's own home 1 (7%)

D-6-2. From the patients' interview

Event that triggered the entry

Fall	4 (36%)
Stroke or heart disease	6 (55%)
Other (Frailty)	1 (9%)

Why did you decide move to the nursing home?

Suggested by medical professionals	1 (9%)	
No family member available to take care	3 (27%)	
My family decided for me	7 (64%)	
Who is s/he?		
spouse		1 (14%)
son		3 (43%)
daughter		3 (43%)

In this pilot, it can be seen that the children of the patients were the main people who made the decision for their elderly relative to move into a nursing home.